January 30, 2004
Supersedes October 15, 2003

BEFORE SUBMITTING YOUR BID

1. **Use pen and ink to complete the Bid.**

2. **Have you signed and completed the Contract Agreement, Offer & Award Forms?**

3. **As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments & Submission of Bid Bond Validation Number form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.**

4. **Have you included prices for all Bid Items? ("Zero is not considered a bid price.")**

5. **Have you included a bid guarantee? Acceptable forms are:**

   A. **Bid Bond on the Department's prescribed form for 5% of the Bid Amount. (Or forms that do not contain any significant variations from the Department's forms as solely determined by the Department.)**

   B. **Official Bank Check, Cashier's Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors.**

6. **If the written Bid is to be sent, Federal Express overnight delivery is suggested as the package is delivered directly to the DOT Headquarters Building in Augusta. Other means, such as U.S. Postal Services' Express Mail has proven not to be reliable.**

AND FOR FEDERAL AID PROJECTS

7. **Have you included your DBE Utilization commitment in the proper amounts and signed the DBE Certification?**

If you need further information regarding Bid preparation, call the DOT Contracts Section at (207)624-3410.

For complete specifications regarding bidding requirements, refer to Section 102 of the Maine Department of Transportation, Standard Specifications, Revision December 2002.

January 30, 2004
Supercedes February 11, 2003

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled, and allow for an electronic downloading of bid packages from our website, while continuing to maintain a planholders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments, must provide an email address to Diane Barnes at the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via **http://www.BIDX.com**. For information on electronic bidding contract Rebecca Pooler at **rebecca.pooler@maine.gov**.

NOTICE

For security and other reasons, all Bid Packages which are mailed, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open
PIN:
Town:
Date of Bid Opening:
Name of Contractor with mailing address and telephone number:

In Addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed
PIN:
Town:
Date of Bid Opening:
Name of Contractor:
This should not be much of a change for those of you who use Federal Express or similar services.

Hand-carried Bids may be in one envelope as before, and should be marked with the following infrormation:

Bid Enclosed: Do Not Open
PIN:
Town:
Name of Contractor:

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

Bid Guaranty-Bid Bond Form

KNOW ALL MEN BY THESE PRESENTS THAT_____

_____, of the City/Town of _____and State of_____

as Principal, and _____as Surety, a

Corporation duly organized under the laws of the State of_____and having a usual place of

Business in _____and hereby held and firmly bound unto the Treasurer of

the State of Maine in the sum of_____,for payment which Principal and Surety bind

themselves, their heirs, executers, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a part herein, to enter into a written contract for the construction of _____

_____

_____and if the Department shall accept said bid and the Principal shall execute and deliver a contract in the form attached hereto (properly completed in accordance with said bid) and shall furnish bonds for this faithful performance of said contract, and for the payment of all persons performing labor or furnishing material in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full force, and effect.

Signed and sealed this_____day of _____20_____

WITNESS:

_____

_____

_____

PRINCIPAL:

By_____

By:_____

By:_____

WITNESS

_____

_____

_____

SURETY:

By_____

By:_____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when faxing questions and comments concerning specific Contracts that have been Advertised for Bid. Include additional numbered pages as required.

State of Maine
Department of Transportation

REQUEST FOR INFORMATION

Date _____ Time _____

Information Requested: **PIN: _____ Town(s): _____**

Request by: _____ Phone: (_____)_____
Bid Date: _____ Fax: (_____)_____

Complete top portion of form and transmit to the number listed in the Notice to Contractors

RFI No: _____ RFI received: _____

Response:_____

Response By:_____ Date: _____

INSTRUCTIONS FOR PREPARING THE CONTRACTOR'S DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION PLAN

The Contractor Shall:

1. Submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan to the Contract's Engineer by 4:30 P.M. on the Bid day.

2. Extend equal opportunity to MDOT certified DBE firms (as listed in MDOT's DBE Directory of Certified Businesses) in the selection and utilization of Subcontractors and Suppliers.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

Insert Contractor name, the name of the person(s) preparing the form, and that person(s) telephone and fax number.

Provide total Bid price, Federal Project Identification Number, and location of the Project work.

In the columns, name each DBE firm to be used, provide the Unit or Item cost of the Work/Product to be provided by the DBE firm, give a brief description of the Work, and the dollar value of the Work.

If no DBE firm is to be utilized, the Contractor must document the reason(s) why no DBE firms are being used. Specific supporting evidence of good faith efforts taken by Contractors to solicit DBE Bidders must be attached. This evidence, as a minimum, includes phone logs, e-mail and/or mail DBE solicitation records, and the documented results of these solicitations.

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

The Apparent Low Bidder must submit the Disadvantaged Business Enterprise Proposed Utilization form by close of Business (4:30 P.M.) on Bid day.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form contains additional information that is required by USDOT.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form must be used.

A copy of the new Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan and instructions for completing it are attached.

Note: Questions about DBE firms, or to obtain a printed copy of the DBE Directory, contact Equal Opportunity at (207) 624-3066.

MDOTs DBE Directory of Certified firms can also be obtained at http://www.state.me.us/mdot/humnres/o_equalo/cdwbed_h.htm

CONTRACTOR'S DISADVANTAGED BUSINESS ENTERPRISE PROPOSED UTILIZATION PLAN

Low Bidder shall furnish completed form to Contracts Section by 4:30 P.M. on Bid Opening day.

TO: MDOT Contracts Section
16 State House Station,
Augusta, Me 04333-0016
or
Fax: 207-624-3431

Contractor: _____
Prepared by: _____

Telephone: _____ Fax: _____

BID PRICE: $_____FEDERAL PROJECT #_____LOCATION: _____

TOTAL DBE PARTICIPATION AS A PERCENT OF TOTAL BID PRICE = _____%

DBE Firm*	Unit/Item Cost	Unit #	Description of work & Item Number	Actual $ Value
			Total >	

If no DBE firm(s) are used, bidder must document efforts made to secure DBE participation and attach supporting evidence of this effort:

_____

_____.

Examples: Bidder relies wholly upon low quote subcontractor section, DBE firm(s) were not low quote. No DBE firms bid.

***Only DBE firms certified by MDOT prior to bidding can be utilized by Contractor for DBE credit. Directory of certified DBEs is available on MDOT's website: www.state.me.us/mdot**

Equal Opportunity Use:

Plan received ___/___/___ Verified by: _____ Action: _____

Office of Human Resources

Equal Opportunity

MAINE DEPARTMENT OF TRANSPORTATION

Certified Disadvantaged and Women Business Enterprise

DBE DIRECTORY - MINORITY OWNED

WBE DIRECTORY - WOMEN OWNED

WEBSITE FOR DIRECTORY CAN BE FOUND AT:
http://www.state.me.us/mdot/humnres/o_equalo/cdwbed_h.htm

It is the responsibility of the Contractor to access the DBE Directory at this site in order to have the most current listings.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Highway Improvements in the town of **Hampden**" will be received from contractors at the Reception Desk, Maine DOT Building, Child Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on March 3, 2004 , and at that time and place publicly opened and read. Bids will be accepted from contractors prequalified by the Department of Transportation for Highway Construction projects. All other Bids may be rejected. **MDOT provides the option of electronic bidding. We now accept electronic bids for those bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: the Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening. During this transition, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.**

Description: Maine Federal Aid Project No. STP-8593(00)X, PIN. 8593.00

Location: In Penobscot County, project is located on Rte.1A from approx. 0.81 mi. north of Wheeldon St. and extends northeasterly 1.8 km. to the Hampden/ Bangor townline.

Outline of Work: Grading, drainage, base, hot mix asphalt, guardrail, curb, water and sewer utilities, and other incidental work.

The basis of award will be Section 0001.

For general information regarding Bidding and Contracting procedures, contact Scott Bickford at (207)624-3410. Our webpage at http://www.state.me.us/mdot/project/design/homepg.htm contains a copy of the schedule of items, Plan Holders List, written portions of bid amendments (not drawings), and bid results. For Project-specific information fax all questions to **Project Manager** Todd Pelletier at (207)624-3481. Questions received after 12:00 noon of Monday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. Hearing impaired persons may call the Telecommunication Device for the Deaf at (207)287-3392.

Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine and at the Department of Transportation's Division III Office in Bangor. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207)624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Full size plans $120.00 ($127.00 by mail). Half size plans $60.00 ($64.00 by mail), Bid Book $10 ($13 by mail), Single Sheets $2, payment in advance, all non-refundable.

Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of $60,000.00 payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

All work shall be governed by "State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002", price $10 [$13 by mail], and Standard Details, Revision of December 2002, price $20 [$25 by mail] Standard Detail updates can be found at http://www.state.me.us/mdot/project/design/homepg.htm

The right is hereby reserved to the MDOT to reject any or all Bids.

Augusta, Maine
February 11, 2004

JOHN E. DORITY
CHIEF ENGINEER

Hampden
8593.00
October 29, 2003
Supercedes June 26, 2003

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS
&
SUBMISSION OF BID BOND VALIDATION NUMBER (IF APPLICABLE)

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at http://www.state.me.us/mdot/comprehensive-list-projects/project-information.php It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, and to incorporate them into their Bid Package. The Maine DOT will not post Bid Amendments any later than noon the day before Bid opening.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package. Failure to acknowledge receipt of all Amendments to the Bid Package will be considered a Non-curable Bid Defect in accordance with Section 102.11.1 of the Standard Specifications, Revision of December 2002.

CONTRACTOR

_____ _____
Date Signature of authorized representative

_____
(Name and Title Printed)

Bid Bond Validation Number _____
(Applicable to annual bid bonds or electronic bid bonds.)

MAINE DEPARTMENT OF TRANSPORTATION

BID

DATE OF OPENING : **CALL ORDER :**

CONTRACT ID : 008593.00

PROJECTS

STP-8593(00)X

COUNTY : PENOBSCOT

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
		SECTION 0001 HIGHWAY ITEMS				
0010	201.11 CLEARING	0.250 HA				
0020	201.23 REMOVING SINGLE TREE TOP ONLY	1.000 EA				
0030	201.24 REMOVING STUMP	6.000 EA				
0040	202.15 REMOVING MANHOLE OR CATCH BASIN	7.000 EA				
0050	202.17 REMOVING EXISTING STRUCTURAL CONCRETE	LUMP	LUMP			
0060	203.20 COMMON EXCAVATION	14255.000 M3				
0070	203.21 ROCK EXCAVATION	25.000 M3				
0080	203.2312 HEALTH AND SAFETY PLAN	LUMP	LUMP			
0090	203.2333 DISPOSAL OF SPECIAL EXCAVATION	35.000 MG				
0100	204.41 REHABILITATION OF EXISTING SHOULDERS, PLAN QUANTITY	556.000 M2				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	206.061 STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE	25.000 M3				
0120	206.07 STRUCTURAL ROCK EXCAVATION - DRAINAGE AND MINOR STRUCTURES	25.000 M3				
0130	304.08 AGGREGATE BASE COURSE - SCREENED	14.000 M3				
0140	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	11500.000 M3				
0150	310.23 PLANT MIX RECYCLED ASPHALT PAVEMENT - 75 MM DEPTH	10660.000 M2				
0160	403.207 HOT MIX ASPHALT 19.0 MM NOMINAL MAX SIZE	3725.000 MG				
0170	403.208 HOT MIX ASPHALT 12.5 MM, SURFACE	2485.000 MG				
0180	403.209 HOT MIX ASPHALT 9.5 MM(SIDEWALKS,DRIVES, INCIDENTAL)	1160.000 MG				
0190	403.211 HOT MIX ASPHALT (SHIM)	835.000 MG				
0200	409.15 BITUMINOUS TACK COAT APPLIED	2030.000 L				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0210	602.30 FLOWABLE CONCRETE FILL	27.000 M3				
0220	603.159 300 MM CULVERT PIPE OPTION III	80.000 M				
0230	603.161 375 MM CORRUGATED METAL PIPE	40.000 M				
0240	603.169 375 MM CULVERT PIPE OPTION III	31.000 M				
0250	603.171 450 MM CORRUGATED METAL PIPE	20.000 M				
0260	603.179 450 MM CULVERT PIPE OPTION III	13.000 M				
0270	603.189 525 MM CULVERT PIPE OPTION III	29.000 M				
0280	603.199 600 MM CULVERT PIPE OPTION III	30.000 M				
0290	603.2009 675 MM CULVERT PIPE OPTION III	15.000 M				
0300	603.209 750 MM CULVERT PIPE OPTION III	121.000 M				
0310	603.219 900 MM CULVERT PIPE OPTION III	38.000 M				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0320	603.77 375 MM INLET GRATE UNIT	5.000 EA				
0330	603.78 450 MM INLET GRATE UNIT	2.000 EA				
0340	604.092 CATCH BASIN TYPE B1-C	46.000 EA				
0350	604.182 CLEAN EXISTING CATCH BASIN AND MANHOLE	5.000 EA				
0360	604.245 CATCH BASIN TYPE F4-C	2.000 EA				
0370	604.247 CATCH BASIN TYPE F5-C	1.000 EA				
0380	604.262 CATCH BASIN TYPE B5-C	2.000 EA				
0390	605.09 150 MM UNDERDRAIN TYPE B	1233.000 M				
0400	605.10 150 MM UNDERDRAIN OUTLET	9.000 M				
0410	605.11 300 MM UNDERDRAIN TYPE C	1143.000 M				
0420	605.12 375 MM UNDERDRAIN TYPE C	264.000 M				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0430	605.13 450 MM UNDERDRAIN TYPE C	44.000 M				
0440	605.14 525 MM UNDERDRAIN TYPE C	158.000 M				
0450	605.16 675 MM UNDERDRAIN TYPE C	90.000 M				
0460	606.23 GUARDRAIL TYPE 3C - SINGLE RAIL	278.000 M				
0470	606.232 GUARDRAIL TYPE 3C - OVER 4.5 M RADIUS	31.000 M				
0480	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	3.000 EA				
0490	606.35 GUARDRAIL DELINEATOR POST	7.000 EA				
0500	606.47 SINGLE WOOD POST	10.000 EA				
0510	606.48 SINGLE GALVANIZED STEEL POST	2.000 EA				
0520	606.63 THRIE BEAM RAIL BEAM	4.000 M				
0530	607.24 REMOVE AND RESET FENCE	6.000 M				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0540	608.08 REINFORCED CONCRETE SIDEWALK	6.000 M2				
0550	609.11 VERTICAL CURB TYPE 1	3.000 M				
0560	609.31 CURB TYPE 3	2395.000 M				
0570	610.08 PLAIN RIPRAP	105.000 M3				
0580	610.18 STONE DITCH PROTECTION	10.000 M3				
0590	612.06 BITUMINOUS SEALING - BLACK	720.000 M2				
0600	613.319 EROSION CONTROL BLANKET	160.000 M2				
0610	615.07 LOAM	1270.000 M3				
0620	618.1301 SEEDING METHOD NUMBER 1 - PLAN QUANTITY	13.000 UN				
0630	618.15 TEMPORARY SEEDING	50.000 KG				
0640	619.1201 MULCH - PLAN QUANTITY	65.000 UN				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0650	621.037 EVERGREEN TREES (1500 MM - 1800 MM) GROUP A	9.000 EA				
0660	621.178 MEDIUM DECIDUOUS TREES (1800 MM - 2400 MM) GROUP A	47.000 EA				
0670	621.195 MEDIUM DECIDUOUS TREE (45 MM - 50 MM CALIPER) GROUP A	12.000 EA				
0680	621.267 LARGE DECIDUOUS TREE (45 MM - 50 MM CALIPER) GROUP A	6.000 EA				
0690	621.54 DECIDUOUS SHRUBS (450 MM - 600 MM) GROUP A	40.000 EA				
0700	621.80 ESTABLISHMENT PERIOD	LUMP	LUMP			
0710	627.711 WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE (PLAN QUANTITY)	7736.000 M				
0720	627.75 WHITE OR YELLOW PAVEMENT AND CURB MARKING	165.000 M2				
0730	627.78 TEMPORARY 100 MM PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	3868.000 M				
0740	629.05 HAND LABOR, STRAIGHT TIME	10.000 HR				
0750	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10.000 HR				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0760	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	20.000 HR				
0770	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	5.000 HR				
0780	631.20 STUMP CHIPPER (INCLUDING OPERATOR)	5.000 HR				
0790	631.22 FRONT END LOADER (INCLUDING OPERATOR)	20.000 HR				
0800	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	5.000 HR				
0810	637.071 DUST CONTROL	LUMP	LUMP			
0820	639.18 FIELD OFFICE TYPE A	1.000 EA				
0830	642.15 PRECAST CONCRETE STEPS	9.000 EA				
0840	642.151 REMOVE AND RESET PRECAST STEPS	1.000 EA				
0850	652.31 TYPE I BARRICADE	10.000 EA				
0860	652.311 TYPE II BARRICADE	20.000 EA				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0870	652.33 DRUM	45.000 EA				
0880	652.34 CONE	80.000 EA				
0890	652.35 CONSTRUCTION SIGNS	75.000 M2				
0900	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP	LUMP			
0910	652.38 FLAGGER	4000.000 HR				
0920	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0930	657.24 SEEDING PITS	50.000 UN				
0940	658.20 ACRYLIC LATEX COLOR FINISH, GREEN	280.000 M2				
0950	659.10 MOBILIZATION	LUMP	LUMP			
0960	660.21 ON-THE-JOB TRAINING (BID)	1000.000 HR				
0970	801.17 200 MM PVC SANITARY SEWER (SDR-35)	15.000 M				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0980	801.18 300 MM PVC SANITARY SEWER (SDR-35)	30.000 M				
0990	803.16 1.2 M DIAMETER PRECAST SEWER MANHOLE	2.000 EA				
1000	812.162 ADJUST SEWER MANHOLE TO GRADE	18.000 EA				
	SECTION 0001 TOTAL					.

SECTION 0002 WATER UTILITIES - NON-PART.

1010	403.207 HOT MIX ASPHALT 19.0 MM NOMINAL MAX SIZE	50.000 MG				
1020	803.01 TEST PITS	7.000 EA				
1030	803.1351 150 MM SERVICE LATERAL	LUMP	LUMP			
1040	803.1361 300 MM SERVICE LATERAL	LUMP	LUMP			
1050	822.33 150 MM CLASS 52 DI PIPE	25.000 M				
1060	822.34 200 MM CLASS 52 DI PIPE	25.000 M				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1070	822.36 300 MM CLASS 52 DI PIPE	1815.000 M				
1080	823.31 300 MM GATE VALVE	15.000 EA				
1090	823.325 200 MM GATE VALVE	2.000 EA				
1100	823.3254 200 MM INSERTION VALVE	1.000 EA				
1110	823.3257 150 MM INSERTION VALVE	3.000 EA				
1120	823.331 150 MM GATE VALVE	6.000 EA				
1130	824.30 FIRE HYDRANTS	8.000 EA				
1140	825.311 19 MM CORPORATION	55.000 EA				
1150	825.312 19 MM CURB STOP	55.000 EA				
1160	825.32 50 MM CORPORATION	3.000 EA				
1170	825.322 50 MM CURB STOP	3.000 EA				

CONTRACT ID: 008593.00 PROJECT(S): STP-8593(00)X

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1180	825.33 25 MM CORPORATION	38.000 EA				
1190	825.331 25 MM CURB STOP	38.000 EA				
1200	825.41 19 MM COPPER SERVICE	225.000 M				
1210	825.42 50 MM COPPER SERVICE	45.000 M				
1220	825.43 25 MM COPPER SERVICE	175.000 M				
1230	827.301 ROCK EXCAVATION WATER MAIN	75.000 M3				
1240	827.311 UNSUITABLE SOIL EXCAVATION, REMOVE AND REFILL- BELOW GRADE	75.000 M3				
1250	827.33 TRENCH INSULATION	75.000 M				
1260	832.07 OWNERS TESTING ALLOWANCE	LUMP	LUMP			
	SECTION 0002 TOTAL					
	TOTAL BID					

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and **(Name of the firm bidding the job)** a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at **(address of the firm bidding the job)**

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No. **1224.00**, for the **Hot Mix Asphalt Overlay** in the town/city of **West Eastport**, County of **Washington**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 15**, 2003**.** Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is **____(Place bid here in alphabetical form such as One Hundred and Two dollars and 10 cents)_____ $_ (repeat bid here in numerical terms, such as $102.10)_____** Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications Revision of December 2002 (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.

3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 1234.00 West Eastport, Hot Mix Asphalt Overlay,

State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work on the date specified in the Engineer's "Notice to Commence Work" as stated in Section 107.2 of the Standard Specifications Revision of 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan by 4:30pm on the day of bid opening to the Contracts Engineer.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

_____	**(Sign Here)**
Date	(Signature of Legally Authorized Representative of the Contractor)
____(**Witness Sign Here)**	**(Print Name Here)**
Witness	(Name and Title Printed)

G. Award.

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date	By: David A. Cole, Commissioner
(Witness)	

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____

a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at _____

_____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No. **8593.00** for **Highway Improvements** in the town of **Hampden**, County of **Penobscot**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **June 10, 2005.** Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is

Section 0001 $_____

Section 0002 $_____

Performance Bond and Payment Bond each being 100% of the amount awarded under this Contract (see award amount in Section G below).

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications Revision of December 2002 (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.

3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advetisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN. 8593.00 – Highway Improvements – in the town of Hampden,
State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work on the date specified in the Engineer's "Notice to Commence Work" as stated in Section 107.2 of the Standard Specifications Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan by 4:30pm on the day of bid opening to the Contracts Engineer.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

_____	_____
Date	(Signature of Legally Authorized Representative of the Contractor)
_____	_____
Witness	(Name and Title Printed)

G. Award.

Your offer is hereby accepted for (see checked boxes):

Section 0001 ❑
Section 0002 ❑

Contract Amount: _____

This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

_____	_____
Date	By: David A. Cole, Commissioner
_____	
Witness	

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____

a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at _____

_____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No. **8593.00** for **Highway Improvements** in the town of **Hampden**, County of **Penobscot**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **June 10, 2005.** Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is

Section 0001 $_____

Section 0002 $_____

Performance Bond and Payment Bond each being 100% of the amount awarded under this Contract (see award amount in Section G below).

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications Revision of December 2002 (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.

3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advetisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN. 8593.00 – Highway Improvements – in the town of Hampden,
State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work on the date specified in the Engineer's "Notice to Commence Work" as stated in Section 107.2 of the Standard Specifications Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan by 4:30pm on the day of bid opening to the Contracts Engineer.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

_____	_____
Date	(Signature of Legally Authorized Representative of the Contractor)
_____	_____
Witness	(Name and Title Printed)

G. Award.

Your offer is hereby accepted for (see checked boxes):

Section 0001 ❑
Section 0002 ❑

Contract Amount: _____

This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

_____	_____
Date	By: David A. Cole, Commissioner
_____	
Witness	

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____ _____ **and the State of** _____, as principal, and……..., a corporation duly organized under the laws of the State of ..... and having a usual place of business ...., as Surety, are held and firmly bound unto the Treasurer of the State of Maine in the sum of _____ **and 00/100 Dollars ($)**, to be paid said Treasurer of the State of Maine or his successors in office, for which payment well and truly to be made, Principal and Surety bind themselves, their heirs, executors and administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in the Contract to construct Project Number _____ in the Municipality of _____ promptly and faithfully performs the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the State of Maine.

Signed and sealed this ..... day of ....., 20…. .

WITNESSES:	SIGNATURES: CONTRACTOR:
Signature.....	.....….....
Print Name Legibly	Print Name Legibly ...….....
	SURETY:
Signature	....….....
Print Name Legibly	Print Name Legibly .....
SURETY ADDRESS:	NAME OF LOCAL AGENCY:
.....	ADDRESS .....
.....	..….....
.....	.....….....
TELEPHONE.....	.....….....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____ _____ **and the State of** _____, as principal, and.....…..... a corporation duly organized under the laws of the State of ..... and having a usual place of business in .....……., as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use and benefit of claimants as herein below defined, in the sum of _____ **and 00/100 Dollars ($)** for the payment whereof Principal and Surety bind themselves, their heirs, executors and administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in the Contract to construct Project Number _____ in the Municipality of _____ promptly satisfies all claims and demands incurred for all labor and material, used or required by him in connection with the work contemplated by said Contract, and fully reimburses the obligee for all outlay and expense which the obligee may incur in making good any default of said Principal, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material or both, used or reasonably required for use in the performance of the contract.

Signed and sealed this ..... day of ...……....., 20 ... .

WITNESS:	SIGNATURES:
	CONTRACTOR:
Signature…….....	.....….....
Print Name Legibly .....…….	Print Name Legibly …....
	SURETY:
Signature.....	...….....
Print Name Legibly	Print Name Legibly …....
SURETY ADDRESS:	NAME OF LOCAL AGENCY:
...….....	ADDRESS ….....
.....	……....
TELEPHONE	……....

General Decision Number ME030010 06/13/2003 ME10

Superseded General Decision No. ME020010

State: Maine

Construction Type:
HIGHWAY

County(ies):
PENOBSCOT

HIGHWAY CONSTRUCTION PROJECTS excluding major bridging (for example: bascule, suspension and spandrel arch bridges; those bridging waters presently navigating or to be navigable; and those involving marine construction in any degree); tunnels, building structures in rest area projects and railroad construction.

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):
PENOBSCOT

ENGI0004M 04/01/2003

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
Grader	16.51	6.00
Paver	16.51	6.00
Roller	16.51	6.00

SUME4026A 10/24/2000

	Rates	Fringes
CARPENTER		
Including Form Work	11.19	1.72
CEMENT MASON/FINISHERS	9.13	
IRONWORKERS		
Stuctural	17.50	1.70
LABORERS		
Landscape	7.84	
Rakers	10.18	2.14
Unskilled	8.73	1.71
POWER EQUIPMENT OPERATORS		
Backhoes	11.81	1.88
Bulldozers	13.12	2.72
Cranes	15.25	1.70
Excavators	11.69	2.40
Loaders	12.21	3.19
TRUCK DRIVERS		
Dump	9.27	
Two Axle	9.12	1.63
Tri Axle	10.63	2.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations

indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the

requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

SPECIAL PROVISION
CONSTRUCTION AREA

A Construction Area located in the **Town of Hampden** has been established by the Maine Department of Transportation in accordance with provisions of Title 29, Section 1703, Maine Revised Statutes Annotated.

(a) The section of highway under construction beginning at Sta. 5+010.0 and ending at Sta. 6+814.0 of the construction centerline plus approaches.

(b) (Rte.1A) The section of highway under construction beginning at Sta. 5+010.0 and ending at Sta. 6+814.0 of the new construction centerline plus approaches.

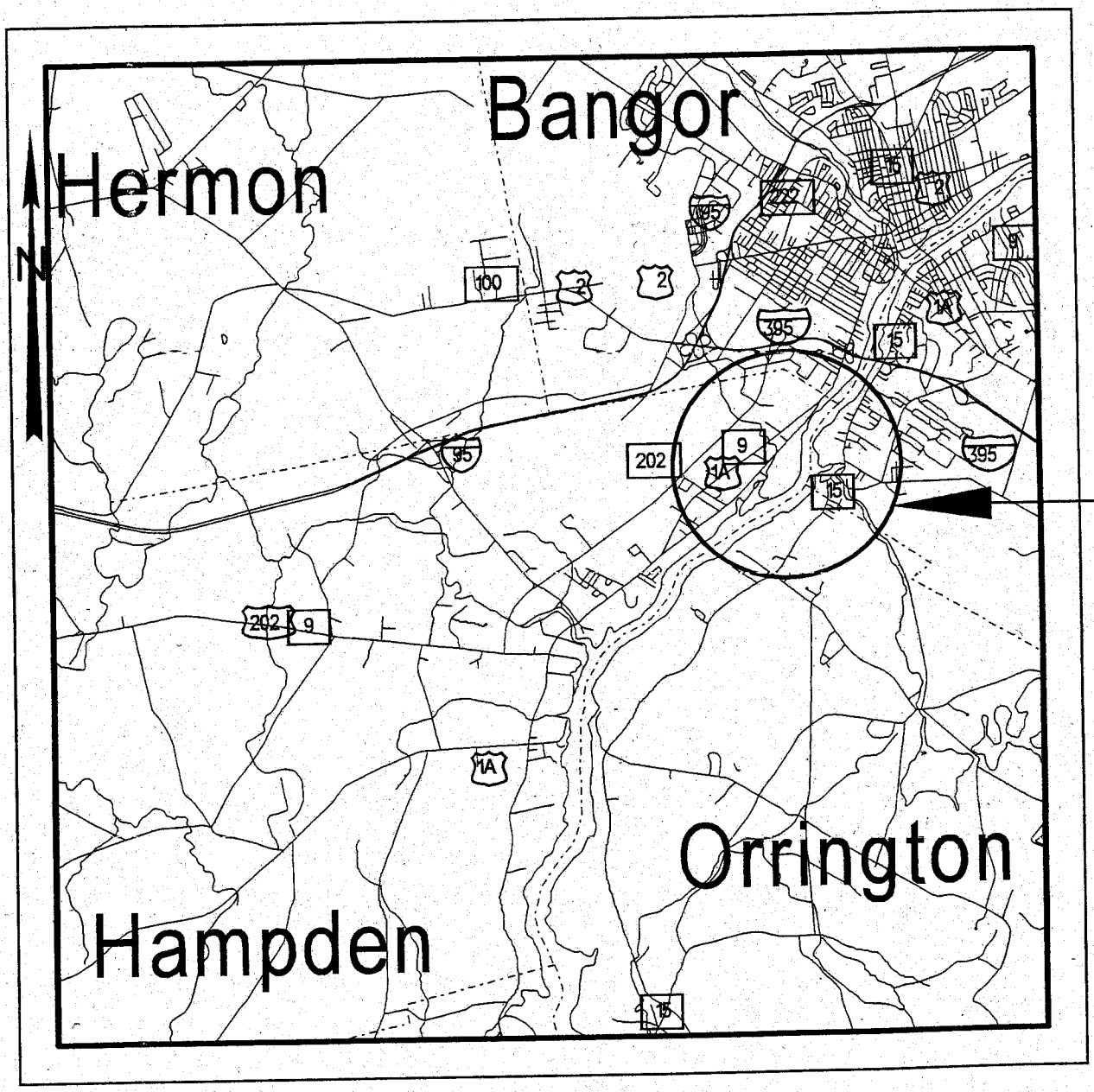
The State Department of Transportation or the State's Engineer may issue permits for stated periods of time for moving construction equipment without loads, low-bed trailers with overloads, over-height, over-width or over-length equipment or materials over all State maintained sections described in the "Construction Area" above and in addition may issue permits for stated periods of time for moving overweight vehicles and loads over the section described in (a) above. The right to revoke such a permit at any time is reserved by the State Department of Transportation and the issuance of such permits shall be subject to any Special Provisions or Supplemental Specifications written for this project.

A Temporary Permit for each move may be issued by the State Department of Transportation or the State's Engineer for moving Contractor's construction equipment used on the project which exceeds the legal limits (shovels, bulldozers, etc.) to sources of construction material over highways maintained by the State reasonably within the area of the project.

The Municipal Officers for the **Town of Hampden** agreed that a permit will be issued to the Contractor for the purpose of hauling loads in excess of the limits as specified in Title 29, Maine Revised Statues Annotated, on the town ways as described in the "Construction Area" and that single move permits will be issued for moving Contractor's construction equipment used on the project which exceeds the legal limits (shovels, bulldozers, etc.) to sources of construction material over town ways reasonably within the area of the project.

In the event it is necessary to transport gravel, borrow, or other construction material in legally registered vehicles carrying legal loads over town ways, a Contractor's Bond of not more than Nine Thousand ($9,000.00) per kilometer of traveled length may be required by the town, the exact amount of said bond to be determined prior to use of any town way.

The maximum speed limits for trucks on any town way will be forty (40) km per hour [25 mph], unless a higher legal limit is specifically agreed upon in writing by the Municipal Officers concerned.



A PORTION OF PENOBSCOT COUNTY

LOCATION MAP

2 0 2 4

Scale in Kilometers

February 7, 1996
Supersedes
May 8, 1995

SPECIAL PROVISION
CONSTRUCTION AREA

Title 29A, M.R.S.A., Subsection 2383. Overlimit movement permits

1. Overlimit movement permits issued by State. The Secretary of State, acting under guidelines and advice of the Commissioner of Transportation, may grant permits to move non-divisible objects having a length, width, height or weight greater than specified in this Title over a way or bridge maintained by the Department of Transportation.

2. Permit Fee. The Secretary of State, with the advice of the Commissioner of Transportation, may set the fee for these permits, at not less than $3, nor more than $15, based on weight, height, length and width.

3. County and municipal permits. A permit may be granted, for a reasonable fee, by county commissioners or municipal officers for travel over a way or bridge maintained by that county or municipality.

4. Permits for weight. A vehicle granted a permit for excess weight must first be registered for the maximum gross vehicle weight allowed for that vehicle.

5. Special mobile equipment. The Secretary of State may grant a permit, for no more than one year, to move pneumatic-tire equipment under its own power, including Class A and Class B special mobile equipment, over ways and bridges maintained by the Department of Transportation. The fee for that permit is $15 for each 30-day period.

6. Scope of permit. A permit is limited to the particular vehicle or object to be moved and particular ways and bridges.

7. Construction permits. A permit for a stated period of time may be issued for loads and equipment employed on public way construction projects, United States Government projects or construction of private ways, when within construction areas established by the Department of Transportation. The Permit:

   A. Must be procured from the municipal officers for a construction area within that municipality;
   B. May require the Contractor to be responsible for damage to ways used in the construction areas and ma provide for:
      (1) Withholding by the agency contraction the work of final payment under contract; or
      (2) The furnishing of a bond by the Contractor to guarantee suitable repair or payment damages.
   C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and
   D. For construction areas, carries no fee and does not come within the scope of this section.

8. Gross vehicle weight permits. The following may grant permits to operate a vehicle having a gross vehicle weight exceeding the prescribed limit:

A. The Secretary of State, with the consent of the Department of Transportation, for state and state aid highways and bridges within city or compact village limits;
B. Municipal officers, for all other ways and bridges within that city and compact village limits; and
C. The county commissioners, for county roads and bridges located in unorganized territory.

9. Pilot vehicles and state police escorts. Pilot vehicles required by a permit must be equipped with warning lights and signs as required by the Secretary of State with the advice of the Department of Transportation.

Warning lights may only be operated and lettering on the signs may only be visible on a pilot vehicle while it is escorting on a public way a vehicle with a permit.

The Secretary of State shall require a State Police escort for a single vehicle or a combination of vehicles of 125 feet or more in length or 16 feet or more in width. The Secretary of State, with the advice of the Commissioner of Transportation, may require vehicles of lesser dimensions to be escorted by the State Police.

The Bureau of State Police shall establish a fee for State Police escorts.

All fees collected must be used to defray the cost of services provided.

With the advice of the Commissioner of Transportation and the Chief of the State Police, the Secretary of State shall establish rules for the operation for the operation of pilot vehicles.

10. Taxes paid. A permit for a mobile home may not be granted unless the applicant provides reasonable assurance that all property taxes, sewage disposal charges and drain and sewer assessments applicable to the mobile home, including those for the current tax year, have been paid or that the mobile home is exempt from those taxes.

1993, c. 683, § S-2, eff. January 1, 1995.

Historical and Statutory Notes

Derivation:

R.S. 1954, c. 22 § 98
Laws 1955, c. 389
Laws 1967, c. 3.
Laws 1971, c. 593, § 22.
Laws 1973, c. 213.
Laws 1975, c. 130, §
Laws 1975, c. 319, § 2 .
Laws 1977, c. 73, § 5.
Laws 1981, c. 413.
Laws 1985, c. 225, § 1
Laws 1987. c. 52.
Laws 1987, 781, § 3.
Laws 1989, c. 866, § B-13.
Laws 1991, c. 388, § 8.
Laws 1993, c. 683, § A-1.
Former 29 M.R.S.A. § 2382.

Cross Reference

Collection by Secretary of State, See 29-A M.R.S.A. § 154.

SPECIAL PROVISION
SECTION 101
Bid Documents

In the event that discrepancies or conflicts between MDOT specifications, special provisions, and plans occur with the Sewer and Water Utilities specifications, special provisions, and plans, MDOT's or the more restrictive shall prevail.

Town: **Hampden**
Project: **STP-8593(00)X, 8593.00**
Date: **February 6, 2004**

SPECIAL PROVISIONS
SECTION 104
Utilities

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **is** required.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Department for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within the limits of this project or intending to install facilities during project construction

.

Overview:

Utility/Railroad	Aerial	Underground	Railroad
Adelphia Communications Corporation	X		
Bangor Hydro-Electric Company	X	X	
Bangor Water District		X	
Hampden Water District		X	
Town of Hampden		X	
Verizon	X		

Temporary utility adjustments are **not** anticipated.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

All adjustments are to be made by the respective utility/railroad unless otherwise specified herein.

All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

AERIAL

Summary:

Utility	Pole Set	New Wires/ Cables	Trans. Wires/ Cables	Remove Poles	Estimated Working Days
Adelphia Communications Corporation			X		20
Bangor Hydro-Electric Company	X		X	X	70
Verizon		X		X	50
				Total:	140

Utility Specific Issues:

Adelphia Communications Corporation **Steve Bossie 1-(877) 500-1055 x-2421**
Adelphia estimates twenty (20) working days to transfer their wires/cables to the new pole locations. Adelphia will not begin their transfers until Bangor Hydro has provided notification that they may begin work.

Bangor Hydro-Electric Company **Bob Peasley 973-2518**
Any tree removal or tree trimming required within ten feet of the Bangor Hydro-Electric Company conductors must be done by a contractor qualified to work within ten feet of the Bangor Hydro conductors. A list of tree removal contractors qualified to remove trees or limbs within ten feet of Bangor Hydro conductors may be obtained from Mark Lamberton and he may be reached at 973-2582.

Bangor Hydro plans to set new poles as indicated on the pole list included in this special provision. Bangor Hydro estimates thirty (30) working days to set poles and twenty (20) working days to transfer their wires/cables to the new poles. After all transfers have been made, Bangor Hydro estimates twenty (20) working days to remove the old poles.

Spot fill at 6+552.2 Rt. must be completed prior to pole sets.

Verizon **Dave Leavitt 990-5239**
Verizon estimates fifty (50) working days to install new wires/cables to the new pole locations. Verizon will not begin their transfers until Adelphia has provided notification that they may begin work.

Town: **Hampden**
Project: **STP-8593(00)X, 8593.00**
Date: **February 6, 2004**

Pole List:

Existing Pole #	Existing Station	Left/ Right		Existing Offset	Proposed Station	Left/ Right		Proposed Offset	Comments
		LT	RT			LT	RT		
	4+937.3		**X**	6.359	SAME		X	7.5	Install new pole, remove abandoned pole
P1410	4+949.2	**X**		6.666	SAME	X		7.5	Install new pole, remove abandoned pole
	4+978.8		**X**	7.214	SAME			7.5	Install new pole, remove abandoned pole
1411	5+022.0	**X**		6.933	SAME	X		7.5	Install new pole, remove abandoned pole
L39	5+024.0		**X**	6.768	SAME		X	7.5	Install new pole, remove abandoned pole
	5+056	**X**			SAME	X		7.5	Install new pole, remove abandoned pole
	5+061.5		**X**	6.719	SAME		X	7.5	Install new pole, remove abandoned pole
1412	5+095.4	**X**		7.334	SAME	X		7.5	Install new pole, remove abandoned pole
	5+099.8		**X**	6.897	SAME		X	7.5	Install new pole, remove abandoned pole
1413d	5+138		**X**		5+133.5		X	7.5	Install new pole, remove abandoned pole
1413	5+160.9	**X**		7.074	5+167	X		7.5	Install new pole, remove abandoned pole
L43	5+177.4		**X**	6.512	5+174		X	7.5	Install new pole, remove abandoned pole
	5+213.1		**X**	6.965	SAME		X	7.5	Install new pole, remove abandoned pole
1414	5+235.5	**X**		7.173					To be removed
1414d	5+249.4		**X**	6.851	SAME		X	7.5	Install new pole, remove abandoned pole
	5+289.0		**X**	6.508	SAME		X	7.5	Install new pole, remove abandoned pole
238/1415	5+306.9	**X**		7.398	SAME				Install new pole, remove abandoned pole
43	5+325.3		**X**	6.087	5+338		X	7.5	Install new pole, remove abandoned pole
1416	5+348.6	**X**		7.232	SAME	X		7.5	Install new pole, remove abandoned pole
1417D	5+366.9		**X**	6.136	SAME		X	7.5	Install new pole, remove abandoned pole
1417	5+380.0	**X**		7.431	SAME	X		7.5	Install new pole, remove abandoned pole
1418	5+402.1	**X**		7.281	SAME	X		7.5	Install new pole, remove abandoned pole
L45	5+416.8		**X**	6.029	5+423		X	7.5	Install new pole, remove abandoned pole
1419	5+438.3	**X**		7.059					To be removed
	5+479.0	**X**		7.357	5+486	X		7.5	Install new pole, remove abandoned pole
L42	5+479.4		**X**	6.334	5+486		X	7.5	Install new pole, remove abandoned pole
30	5+488.2	**X**		7.204					To be removed
	5+505.7		**X**	7.626					Existing pole to remain
1421	5+521.5	**X**		7.373		X			To be removed
	5+532.3	**X**		25.224					Existing pole to remain
5S	5+538.3		**X**	6.542	SAME		X	7.5	Install new pole, remove abandoned pole
1422	5+560.3	**X**		7.373	SAME	X		7.5	Install new pole, remove abandoned pole
	5+577.4		**X**	7.105	SAME		X	7.5	Install new pole, remove abandoned pole
1423	5+598.6	**X**		7.132	SAME	X		7.5	Install new pole, remove abandoned pole
L54/ 1/2	5+616.9		**X**	7.088	5+618.5		X	7.5	Install new pole, remove abandoned pole

1424	5+617.8	**X**		6.763					To be removed
1424½	5+638.7	**X**		6.863	SAME	X			To be removed
	5+658.7		**X**	6.527	SAME		X	7.5	Install new pole, remove abandoned pole
1425	5+676.3	**X**		6.736					To be removed
1426	5+706.3	**X**		6.649	SAME	X		7.5	Install new pole, remove abandoned pole
	5+710.9		**X**	7.661					Existing pole to remain
L57	5+738.7		**X**	8.098					Existing pole to remain
1427	5+741.5	**X**		7.139	SAME	X		7.5	Install new pole, remove abandoned pole
1428	5+771.8	**X**		6.612	5+779	X		7.5	Install new pole, remove abandoned pole
1428d	5+776.4		**X**	6.658	5+779		X	7.5	Install new pole, remove abandoned pole
1429D	5+814.0		**X**	6.602	5+814		X	7.5	Install new pole, remove abandoned pole
1429	5+814.0	**X**		6.642	5+812	X		7.5	Install new pole, remove abandoned pole
1430	5+849.8	**X**		6.448					To be removed
	5+857.0		**X**	6.507	5+857.0		X	7.5	Install new pole, remove abandoned pole
1431	5+875.6	**X**		6.366	SAME	X		7.5	Install new pole, remove abandoned pole
L61	5+889.7		**X**	6.508	SAME		X	7.5	Install new pole, remove abandoned pole
1432	5+912.7	**X**		6.087					To be removed
	5+928.7		**X**	6.069	SAME		X	7.5	Install new pole, remove abandoned pole
1433	5+939.2	**X**		5.599	5+938	X		7.5	Install new pole, remove abandoned pole
	5+966.4		**X**	6.122	SAME		X	7.5	Install new pole, remove abandoned pole
1434	5+975.0	**X**		6.015	Same	X		7.5	Install new pole, remove abandoned pole
	6+007.6		**X**	5.715	SAME		X	7.5	Install new pole, remove abandoned pole
1435	6+017.8	**X**		6.026	SAME	X		7.5	Install new pole, remove abandoned pole
L65	6+042.3		**X**	5.782	SAME		X	7.5	Install new pole, remove abandoned pole
1436	6+055.7	**X**		6.189	SAME	X		7.5	Install new pole, remove abandoned pole
	6+081.1		**X**	6.467	SAME		X	7.5	Install new pole, remove abandoned pole
1437	6+097.7	**X**		6.351	Same	X		7.5	Install new pole, remove abandoned pole
	6+105.3		**X**	13.626					Existing pole to remain
	6+107.9		**X**	6.561	SAME		X	7.5	Install new pole, remove abandoned pole
	6+114.6		**X**	6.374	SAME		X	7.5	Install new pole, remove abandoned pole
1438	6+124.5	**X**		6.060	SAME	X		7.5	Install new pole, remove abandoned pole
	6+140.8		**X**	6.066	6+142		X	7.5	Install new pole, remove abandoned pole
	6+167.8	**X**		7.218					To be removed
L70	6+168.5		**X**	5.754	SAME		X	7.5	Install new pole, remove abandoned pole
1439	6+179.1	**X**		5.485	SAME	X		7.5	Install new pole, remove abandoned pole
1440	6+204.7	**X**		5.691					To be removed
1441d	6+215.4		**X**	6.634	SAME		X	7.5	Install new pole, remove abandoned pole
	6+220.5		**X**	12.297					Existing pole to remain
1441	6+234.0	**X**		5.299	SAME	X		7.5	Install new pole, remove abandoned pole
1442d	6+250.6		**X**	6.826	SAME		X	7.5	Install new pole, remove abandoned pole
1442	6+272.1	**X**		6.523	SAME	X		7.5	Install new pole, remove abandoned pole

L73	6+282.3		**X**	6.231	SAME		X	7.5	Install new pole, remove abandoned pole
1443	6+309.7	**X**		6.567	SAME	X		7.5	Install new pole, remove abandoned pole
	6+319.4		**X**	5.890	SAME		X	7.5	Install new pole, remove abandoned pole
1444	6+362.5	**X**		6.434	SAME	X		7.5	Install new pole, remove abandoned pole
	6+370.3		**X**	6.667	SAME		X	7.5	Install new pole, remove abandoned pole
1445	6+417.3	**X**		6.836					To be removed
L76	6+423.8		**X**	7.451	SAME		X	7.5	Install new pole, remove abandoned pole
	6+477.3		**X**	8.060					Existing pole to remain
	6+514.2		**X**	7.559					Existing pole to remain
1449	6+530.5	**X**		6.196	SAME	X		7.5	Install new pole, remove abandoned pole
	6+551.5		**X**	6.429	SAME		X	7.5	Install new pole, remove abandoned pole
1519	6+552.2		**X**	6.710	SAME		X	7.5	Install new pole, remove abandoned pole
1520	6+591.0		**X**	6.270	SAME		X	7.5	Install new pole, remove abandoned pole
1521	6+645.9		**X**	7.079	Same		X	7.5	Install new pole, remove abandoned pole
	6+647.5	**X**		29.846					Existing pole to remain
5/1A	6+666.8	**X**		35.043					Existing pole to remain
					6+680	X		7.6	Install new pole, remove abandoned pole
1523	6+699.1		**X**	7.659					To be removed
1526	6+712.1	**X**		19.193					Existing pole to remain
1524	6+738.0		**X**	5.384					To be removed
87	6+745.0	**X**		10.110					Install new pole, remove abandoned pole
1527	6+774.1		**X**	4.836					To be removed
1526	6+779	**X**			6+775	X		7.5	Install new pole, remove abandoned pole
86	6+805.4	**X**		6.866					Existing pole to remain

SUBSURFACE

Summary:

Utility	Summary of Work	Estimated Working Days
Bangor Water District	No apparent conflicts	0
Hampden Water District	Replace water line-length of project	*
Town of Hampden	Adjust Sewer Manholes (18) Relocate sewer at School House Lane	* *
Verizon	Relocate UG services to new poles Change UG cable to aerial cable	* 15
Bangor Hydro	No work anticipated	0
	Total:	15

Utility Specific Issues:

Bangor Water District **Greg Reed 947-4516 x-371**
The Bangor Water District has facilities at the North end of the project in the vicinity of Station 6+800. Bangor Water District requires a five (5) working day notice prior to any work in the vicinity of their main.

Hampden Water District **Cam Torrey 862-3490**
The Hampden Water District has entered into an agreement with the Department for work to be performed by the Department's contractor. The Hampden Water District has reserved the option to accept or reject the bid price for their work. If the Hampden Water District accepts the bid prices, the Contractor shall install this water system as part of the bid document and shall include installation of the new water system in the schedule for construction. If the Hampden Water District rejects the bid prices, all associated water items shall be omitted from the contract in its entirety. If the Hampden Water District rejects the bid price for the above-mentioned work, the Hampden Water District will remain responsible for the water work located within the Project limits in such a manner as to not cause delay to the Project Contractor.

Town of Hampden **Greg Nash 862-3337**
The Town of Hampden has entered into an agreement with the Department to include sewer manhole adjustments and the relocation of the sewer crossings at School House Lane and Kelly Lane in the contract. The Contractor shall perform the sewer work as part of the bid document and include the adjustments and installations in the schedule for construction.

Verizon **Dave Leavitt 990-5239**
Verizon has buried cable (abandoned and live) at the north end of the project. Verizon intends to replace all underground cable with aerial cable from Sta. 5+100 on the Old County Road to the end of the project at Sta. 6+850. Verizon estimates fifteen (15) working days to complete this work. The contractor shall notify Verizon three (3) working days prior to beginning work in the vicinity of the buried cable as Verizon may elect to have a representative present during all excavations. Working day estimates required to relocate UG services to the new pole locations has been included in the aerial estimate.

Bangor Hydro **Bob Peasley 973-2518**
Bangor Hydro has an underground transmission crossing at approximately 6+100. Bangor Hydro requires three (3) working days notice prior to beginning any excavation in the vicinity of their crossing.

SPECIAL PROVISION
SECTION 105
LEGAL RELATIONS WITH AND RESPONSIBILITY TO PUBLIC
(NPDES)

105.8.2 Permit Requirements This Section is revised by the addition of the following paragraph:

"The Contractor is advised that the Environmental Protection Agency has issued a final National Pollutant Discharge Elimination System (NPDES) General Permit for storm water discharges from construction sites disturbing more than 2 ha [5 acres]. This permit requires:

- Storm Water Pollution Prevention Plan
- Submission of a Notification of Intent (NOI) at least 48 hours before construction commences
- Submission of a Notification of Termination (NOT) when a site has been finally stabilized and all storm water discharges from construction activities are eliminated.

If the project's land disturbances is 2 ha [5 acres] or more, the Department will prepare the plan and submit the NOI (and NOT). The Contractor shall prepare plans and submit NOI's (and NOT's) for regulated construction activities beyond the project limits (e.g., borrow pits).

The Contractor shall be familiar with and comply with these regulations."

SPECIAL PROVISION
SECTION 107
TIME
(Limitation of Operations)
and
(Supplemental Liquidated Damages)

Where existing pavement carries traffic and is removed to install (or remove) drainage structures, the pavement shall be replaced daily with a temporary pavement consisting of a minimum of 75 mm [3 inches] of acceptable hot or cold bituminous mixture. Cold bituminous mixture shall contain aggregates, asphalt cutbacks, liquefiers and wetting agents. No separate payment will be made for furnishing, placing, maintaining, and removing temporary pavement and all cost of such work will be considered incidental to the various drainage items.

Where existing pavement is excavated or covered by fill as a part of the general grading operations prior to November 15, 2004, the binder course of the hot mix asphalt pavement shall be installed and completed on or before November 15, 2004. Supplemental liquidated damages shall be assessed the Contractor in the amount of Three Hundred Dollars ($300.00) per day for each calendar day, beginning November 16, 2004 that above stated binder course remains incomplete. This assessment of supplemental liquidated damages shall be in addition to the liquidated damages per working day, as specified in Section 107 of the Standard Specifications.

Grading operations which excavate or fill over existing pavement being used to carry traffic shall be suspended on November 15, 2004 and not be resumed until the Spring of 2005.

SPECIAL PROVISION
SECTION 107
TIME

The specified contract completion date is June 10th 2005.

SPECIAL PROVISION
(Consolidated Special Provisions)

SPECIAL PROVISION SECTION 101
CONTRACT INTERPRETATION

101.2 Definitions - Closeout Documentation

Replace the sentence "A letter stating the amount….. DBE goals." with "DBE Goal Attainment Verification Form"

SPECIAL PROVISION SECTION 102
DELIVERY OF BIDS
(Location and Time)

102.7.1 Location and Time Add the following sentence "As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments & Submission of Bid Bond Validation Number form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book."

SPECIAL PROVISION SECTION 103
AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering

Change the first paragraph to read as follows: "After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department's satisfaction that the Bidder is responsible and qualified to perform the Work."

SPECIAL PROVISION SECTION 105
GENERAL SCOPE OF WORK

105.6.2 Contractor Provided Services

Change the first paragraph by the addition of the following as the second sentence: "The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work."

SPECIAL PROVISION SECTION 106
QUALITY

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

SPECIAL PROVISION SECTION 107
TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

SPECIAL PROVISION SECTION 108
PAYMENT

108.4 Payment for Materials Obtained and Stored First paragraph, second sentence, delete the words "…Delivered on or near the Work site at acceptable storage places."

SPECIAL PROVISION SECTION 109
CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: "There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s)."

109.1.2 Substantial Changes to Major Items Add the following to the end of the paragraph: "Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department"

109.4.4 Investigation / Adjustment In the third sentence, delete the words "subsections (A) - (E)"

109.7.2 Basis of Payment Replace with the following: "Equitable Adjustments will be established by mutual Agreement for compensable items listed in Section 109.7.3- Compensable Items, based upon Unit or Lump Sum Prices. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment."

109.7.3 Compensable Items Replace with the following: "The Contractor is entitled to compensation for the following items, with respect to agreed upon Unit or Lump Sum Prices:

1. Labor expenses for non-salaried Workers and salaried foremen.

2. Costs for Materials.

3. A markup on the totals of Items 1 and 2 of this subsection 109.7.3 for home office overhead and profit of the Contractor, its Subcontractors and suppliers, and any lower tier Subcontractors or suppliers, with no mark-ups on mark-ups.

4. Cost for Equipment, based on Blue Book Rates or leased rates, as set forth in Section 109.7.5(C), or the Contractor's Actual Costs.

5. Costs for extended job-site overhead.

6. Time.

7. Subcontractor quoted Work, as set forth below in Section 109.7.5 (F)."

109.7.5 Force Account Work

C. Equipment

Paragraph 2, delete sentence 1 which starts; "Equipment leased…."

Paragraph 6, change sentence 2 from "The Contractor may furnish…" to read "If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records."

Add the following paragraph; "Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs."

Add the following section;

"F. Subcontractor Quoted Work When accomplishing Force Account Work that utilizes Subcontractor quoted Work, the Contractor will be allowed a maximum markup of 5% for profit and overhead."

SPECIAL PROVISION SECTION 401
HOT MIX ASPHALT PAVEMENT

401.18 Quality Control Method A & B Make the following change to paragraph a. QCP Administrator; in the final sentence, change "…certified as a Plant Technician or Paving Inspector…" to "…certified as a Quality Assurance Technologist…"

401.201 Method A Under a. Lot Size, add the following; "Each lot will be divided into a minimum of four sublots for mix properties and five sublots for percent TMD."

SPECIAL PROVISION SECTION 402
PAVEMENT SMOOTHNESS

Add the following: "Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Bituminous Box."

"402.02 Lot Size Lot size for smoothness will be 1000 lane-meters [3000 lane-feet]. A sublot will consist of 20 lane-meters [50 lane-feet]. Partial lots will be included in the previous lot if less than one-half the size of a normal lot. If greater than one-half the normal lot size, it will be tested as a separate lot."

SPECIAL PROVISION SECTION 502
STRUCTURAL CONCRETE

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: "For an individual sublot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80……"

502.0503 Quality Assurance Method B - Rejection by Resident Change the first sentence to read: "For material represented by a verification test with test results failing to meet the criteria in Table #1, the Department will……"

502.0505 Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: "Circumstances may arise, however, where the Department may ……"

SPECIAL PROVISION SECTION 504
REINFORCING STEEL

504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: "…ASTM A 898/A 898 M…" to "…ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and…"

SPECIAL PROVISION SECTION 535
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.02 Materials Change "Steel Strand for Concrete Reinforcement" to "Steel Strand." Add the following to the beginning of the third paragraph; "Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate…."

535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension…" with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force."

SPECIAL PROVISION SECTION 604
MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

"Tops and Traps	712.07
Corrugated Metal Units	712.08
Catch Basin and Manhole Steps	712.09"

SPECIAL PROVISION SECTION 615
LOAM

615.02 Materials Make the following change:

Organic Content	Percent by Volume
Humus	"5% - 10%", as determined by Ignition Test

SPECIAL PROVISION SECTION 618
SEEDING

618.01 Description Change the first sentence to read as follows: "This work shall consist of furnishing and applying seed ….." Also remove ",and cellulose fiber mulch" from 618.01(a).

618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: "These rates shall apply to Seeding Method 2, 3, and Crown Vetch."

In 618.03(c) "1.8 kg [4 lb]/unit." to "1.95 kg [4 lb]/unit."

618.09 Construction Method In 618.09(a) 1, sentence two, replace "100 mm [4 in]" with "25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)"

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

SPECIAL PROVISION SECTION 620
GEOTEXTILES

620.03 Placement Section (c)

Title: Replace "Non-woven" in title with "Erosion Control".
First Paragraph: Replace first word "Non-woven" with "Woven monofilament".
Second Paragraph: Replace second word "Non-woven" with "Erosion Control".

620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the third sentence with the following: "Damaged geotextiles, as identified by the Resident, shall be repaired immediately."

620.09 Basis of Payment

Pay Item 620.58: Replace "Non-woven" with "Erosion Control"
Pay Item 620.59: Replace "Non-woven" with "Erosion Control"

SPECIAL PROVISION SECTION 626
HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: "Pre-cast and cast-in-place foundations shall be warranteed against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost."

SPECIAL PROVISION SECTION 637
DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: "Failure by the Contractor to follow Standard Specification or Special Provision - Section 637 and/or the Contractor's own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor's own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control."

SPECIAL PROVISION SECTION 652
MAINTENANCE OF TRAFFIC

652.8.2 Other Items Replace the last paragraph with the following: "There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time."

SPECIAL PROVISION SECTION 656
TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.1 If Pay Item 656.75 Provided Replace the second paragraph with the following: "Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 and/or the Contractor's own Soil Erosion and Pollution Control Plan will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item."

SPECIAL PROVISION SECTION 703
AGGREGATES

703.22 Underdrain Backfill Material Change the first paragraph from "…for Underdrain Type B…" to "…for Underdrain Type B and C…"

SPECIAL PROVISION SECTION 709
REINFORCING STEEL AND WELDED STEEL WIRE FABIC

709.03 Steel Strand Change the second paragraph from "…shall be 12mm [½ inch] AASHTO M203M/M203 (ASTM A416/A416M)…" to "…shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)…"

SPECIAL PROVISION SECTION 712
MISCELLANEOUS HIGHWAY MATERIALS

Add the following:

"712.07 Tops, and Traps These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron castings shall conform to the requirements of AASHTO M105, Class 30, unless otherwise designated.

Carbon steel castings shall conform to the requirements of AASHTO M103/M103M. Grade shall be 450-240 [65-35] unless otherwise designated.

Structural steel shall conform to the requirements of AASHTO M183/M183M or ASTM A283/A283M, Grade B or better. Galvanizing, where specified for these units, shall conform to the requirements of AASHTO M111.

712.08 Corrugated Metal Units The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

712.09 Catch Basin and Manhole Steps Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

(a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.

(b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.

(a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible

signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.
The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self- illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [½ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and

circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.

712.33 Non-metallic Pipe, Flexible Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.

712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.

712.341 Metallic Pipe Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

712.35 Epoxy Resin Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.

712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture.
Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

712.38 Stone Slab Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [½ in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [3/4 in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

SPECIAL PROVISION SECTION 717
ROADSIDE IMPROVEMENT MATERIAL

717.05 Mulch Binder. Change the third sentence to read as follows:

"Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit]."

Route 1A - Hampden, Maine
Project No. STP-8593(00) X
September 10, 2003

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(CONTAMINATED SOIL AND GROUNDWATER MANAGEMENT)

General. The work under this specification shall be performed in conformance with all the procedures and requirements described herein for the following activities: contaminated soil handling, reuse, temporary stockpiling, transportation, storage and disposal and contaminated water handling, storage, treatment, and disposal. This specification also addresses contaminated soil location, identification and classification. The intent of this specification is to ensure that contaminated soil and/or water encountered during construction will be managed in a manner that protects worker health and safety, public welfare and the environment.

Environmental Site Conditions. The Maine Department of Transportation's Environmental Office (MDOT's-ENV.) has conducted a series of assessments related to the Route 1A Highway Improvement Project in Hampden. An initial Phase I Environmental Assessment for the project area was completed to obtain a general understanding of the environmental conditions along the project corridor. Data garnered from this assessment was used to design a Modified, Phase II Contamination Assessment for the project. The primary focus of the assessments was to evaluate the type and extent of subsurface contamination along the project corridor. The Phase I Assessment included a review of relevant Maine Department of Environmental Protection's (MDEP's) and Environmental Protection Agency's (EPA's) databases and field reconnaissance of the project area. Underground utility representatives and other knowledgeable individuals were also queried for further information regarding environmental conditions within the project area. During Phase II, test borings were advanced along the project's length for investigative purposes. A photo-ionization detector (PID) was used to test soil boring samples from the explorations for volatile organic compound (VOC) concentrations indicative of petroleum products. (See *Identified Areas of Contamination* below). Select samples for laboratory testing were also taken to further aid in evaluating subsurface conditions. The results of these investigations indicate that the subsurface area along a portion of this project is adversely impacted. Data associated with this determination are available for review from the Hydrogeologist at MDOT's Environmental Office in Augusta (207-624-3100).

Identified Area of Contamination. The efforts put forth in the Phase I and Phase II portions of the contamination assessment identified one area of soil contamination.

This area, designated as **Area A,** is defined as, along Route 1A, in the vicinity of a former Irving gas station, from approximately MDOT Survey Stations 6+595 to 6+660, right and left of centerline. Within **AREA A**, poly-bag field samples screened with a photo-ionization detector (PID) calibrated to the appropriate MDEP specified set point ranged from 4 ppm to 2170 ppm at depths to 3.7 m below ground surface (bgs). Contamination in **AREA A** appears to be related to the past use and storage of petroleum products, such as gasoline and diesel. Soil samples were collected from two explorations within **AREA A** to further define the contamination. The samples were collected from explorations GP101 and GP102 (located at Survey Station 6+605, left of centerline and 6+615, left of centerline respectively) from depths of 1.3 to 2.4 m bgs. The samples were submitted to Katahdin Analytical, Inc for laboratory analysis. The sample from GP101 was analyzed for VOCs, gasoline range organics (GRO) and total lead. The sample from GP102 was analyzed for diesel range organics (DRO).

A variety of VOCs consisting of typical gasoline constituents were detected in the soil sample from GP101. GRO and total lead were also reported at 6,800 mg/kg and 187 mg/kg, respectively. DRO was detected in GP102 at a concentration of 770 mg/kg. The GRO and DRO concentrations define the soils as special waste per State remedial guidelines. As such, excavated soil from **AREA A** will require special handling and/or disposal/treatment during construction. Lead at the level detected in the soil falls below State remedial guidelines.

Identifying and Screening Contaminated Soil and Groundwater. Within the contaminated section designated **Area A**, excavated soils will be classified by the Engineer (or an MDOT-ENV representative) based on their visual and olfactory evidence of contamination and by photo-ionization detector (PID) field screening. Field screening with a PID shall be performed according to the MDEP "Jar/Poly Bag Headspace Technique" contained in Appendix Q of *Regulations for Registration, Installation, Operation and Closure of Underground Oil Storage Facilities, Chapter 691* (MDEP 12/24/96) and using MDEP's May 1995 calibration set-points.

The excavated soils shall be classified as Group 1, Group 2 or Group 3.

Group 1 soils shall have no visible or olfactory evidence of contamination and photo-ionization detector (PID) field screening measurements will indicate relative concentrations of VOCs less than or equal 20 parts per million (ppm) as measured in the soil headspace.

Group 2 soils shall have PID field screening measurements indicating VOC concentrations greater than 20 ppm and less than or equal to 2000 ppm and contain no "petroleum saturated" soils or free-phase petroleum product.

Group 3 soils shall have PID field screening measurements greater than 2000 ppm or be "petroleum saturated." Analysis to determine "petroleum saturation" shall be performed according to MDEP guidance in *Procedural*

Guidelines for Establishing Standards for Remediation of Oil Contaminated Soil and Ground Water in Maine (MDEP, 1/11/95).

Handling and Disposition of Soil Materials. Within **Area A**, soil material excavated during construction shall be handled as follows:

Group 1 soils are not considered contaminated. Thus, special handling and disposal are not required for Group 1 soils.

Group 2 soils shall be placed back into the their excavation section of origin. The Contractor shall make every attempt to side cast any Group 2 soils next to their excavation site. Upon completion of the given constructional feature, the Group 2 soils shall be placed back into the excavation. Group 2 materials not handled in this manner shall be considered Surplus Group 2 soils. Surplus Group 2 soils must be disposed of or treated at a facility licensed by the MDEP to accept petroleum contaminated special waste. The Contractor is solely responsible for obtaining the associated permits and approvals for the disposal or treatment of the Surplus Group 2 soils from all relevant Municipal, State, and Federal agencies at no additional cost to the State. Notification shall be given to the Engineer once approval is granted for the acceptance of this material at the off site facility. No removal of Surplus Group 2 soils from the project shall occur without prior approval by the Engineer. If any Surplus Group 2 soils cannot be transported to the pre-approved, properly licensed facility within 8 hours of their excavation, they must be placed in a Temporary Secure Stockpile Area somewhere within the project limits (See Temporary Secured Stockpile Area below).

Group 3 soils shall not be excavated without prior approval by the Engineer. The Contractor shall arrange and undertake disposal of all Group 3 soils at a landfill or treatment facility licensed to accept petroleum contaminated special waste. The Contractor is responsible for all additional testing required by the disposal facility. Group 3 soils that cannot be disposed of within 8 hours of excavation shall be stored in a secured stockpile area. If the Contractor proposes other disposal or treatment options, the Contractor is solely responsible for obtaining the associated permits and approvals from all relevant Municipal, State, and Federal agencies at no additional cost to the State.

The Engineer is responsible for signing any manifests or bills of lading required to transport and dispose of contaminated soil. The Engineer will send all manifests to MDOT, Motor Transport Services, Station 26, Augusta, Maine 04333.

Trench and Underdrain/Stormdrain Design in Contaminated Section. Between the catch basins proposed at 6+597.5 and 6+674.8, left of centerline, and between the catch basins proposed at 6+602.9 and 6+710.0, right of centerline, solid, Option III, non-perforated culvert pipe shall be used instead of perforated underdrain pipe to help prevent

the infiltration and transportation of potentially contaminated groundwater within the underdrain/stormdrain system. The Contractor shall backfill around the pipe and trenches in this section with uncontaminated material. Backfilling of the trench shall be in accordance with Section 206.03. All stones larger than 75 mm (3 inches), frozen lumps, dry chunks of clay or any other objectionable matter shall be removed before backfilling.

Seepage control dikes (SCD) shall be installed roughly every 20 m along the stormwater pipe. Given this distribution, the SCD centers positioned left of the centerline shall fall at approximately Stations 6+600 (at catch basin outlet, north), 6+620, 6+640, and 6+660. The SCD centers positioned right of the centerline shall fall at approximately Stations 6+605 (at catch basin outlet, north), 6+625, 6+645, 6+665, 6+685, and 6+705. Additionally, SCDs shall be installed on both sides of any utility trenches that intersect the drainage trenches between Stations 6+597.5 through 6+710.

The SCDs shall consist of a mineral clay material with a liquid limit of equal to or greater than 24 and a natural moisture content of at least 20 percent. The clay should be placed in dry excavations in 150 mm (6 inch) maximum, thick lifts and compacted to 90% of the maximum dry unit weight as determined by AASHTO T99 (Standard Proctor). The SCDs shall be 1.5 meters (5 feet) long, be in intimate contact with the trench floor, trench walls and circumference of the pipe and extend up to the bottom of the road base. The excavated existing road base or similar material may be placed on top of the SCDs. The Contractor shall take care to ensure that no voids or uncompacted soil is left beside or beneath the Option III culvert pipe.

Secured Stockpile Area. Direct transport of Surplus Group 2 or Group 3 soils to a pre-approved management facility is recommended. However, should the Contractor temporarily store any Surplus Group 2 or Group 3 soils at the site for more than 8 hours following excavation, they must be placed into a properly constructed Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area must be constructed as defined herein and must be approved by the Engineer prior to its use.

Should the Contractor utilize a Secured Stockpile Area, they shall install a continuous one-foot (0.30 m) high compacted soil berm around the Secured Stockpile. The Secured Stockpile shall be placed on a liner of 20-mil polyethylene and securely covered with 20-mil polyethylene. The polyethylene liner and cover shall be placed over the soil berm and be installed to ensure that precipitation water drains directly to the outside of the berm perimeter while leachate from the contaminated soil is retained within the stockpile. The Secured Stockpile and soil berm shall be enclosed within a perimeter of concrete Jersey barriers or wooden barricades. The area within the Jersey barriers (or wooden barricades) shall be identified as a "restricted area" to prevent unauthorized access to the contaminated soils.

Secured Stockpile Area - Materials.

A. Polyethylene. Polyethylene used for liner in the Secured Stockpile Area shall have a minimum of 20-mil thickness and shall meet the requirements of ASTM D3020.

B. Common Borrow. Fill used in the construction of the Temporary Secured Stockpile Area soil berm shall consist of Common Borrow and meet the requirements of Section 703.18

C. Concrete Barriers or Wooden Barricades. Concrete barriers or Wooden Barricades to form the sides of the Temporary Secured Stockpile Area shall meet the requirements of Section 526 or 652.05.

Health and Safety/Right-to-Know. Contractors and Subcontractors are required to notify their workers of the history of the site and contamination that may be present and to be alert for evidence of contaminated soil and groundwater. The Contractor shall notify the Engineer at least three business days prior to commencing any excavation in **Area A**.

The Contractor shall prepare a site specific Health and Safety Plan (HASP) for its workers and subcontractors who may work in the contaminated area of the site. A Qualified Health and Safety Professional shall complete the HASP. The Qualified Health and Safety Professional will be an expert in field implementation of the following federal regulations:

29 CFR 1910.120 or 29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1910.134	Respiratory Protection
29 CFR 1926.650	Subpart D - Excavations
29 CFR 1926.651	General Requirements
29 CFR 1926.652	Requirements for Protective Systems

The Contractor shall designate a Hazardous Waste Operations "Competent Person" to provide direct on-site supervision plus health and safety monitoring for work in the contaminated section. The Competent Person shall have certified training and experience in field implementation of the aforementioned regulations.

MDOT is voluntarily ameliorating the contamination in **Area A.** The remedial efforts defined herein have been reviewed and approved by MDEP. Given that this is a voluntary clean up effort approved by a regulatory agency, the OSHA requirements as

defined in 29 CFR 1910.120 apply. These requirements mandate that workers and subcontractors working in the contaminated area shall be trained in Health and Safety procedures according to the OSHA regulations for Hazardous Waste Operations and Emergency Response, be current in their annual OSHA refresher course, and be medically monitored in compliance with these OSHA regulations.

Work inside contaminated trench sections may be subject to OSHA's permit-required confined space regulations under 29 CFR 1910.146.

Submittals. The Contractor shall submit a site specific Health and Safety Plan (HASP) to the Engineer at least two weeks in advance of any excavation work on the project.

Health and Safety Monitoring. Within the contaminated area of the project, the Contractor's designated Competent Person shall monitor the worker breathing zone for those constituents specified in the Contractor's HASP. The Contractor shall provide all required health and safety monitoring equipment.

Dewatering. Within **Area A** groundwater is not anticipated during excavation for roadway basing and drainage enhancement. However, should its removal become necessary to complete work it will be treated as "contaminated" water. The Contractor shall inform the Engineer before any dewatering commences. The "contaminated" water shall be pumped into a temporary holding tank(s). The Contractor will be responsible for the procurement of any holding tank(s). Any testing, treatment and/or disposal of the stored, motor fuel contaminated, water shall be undertaken by the Contractor in accordance with applicable Federal, State and local regulatory requirements.

On-Site Water Storage Tanks - Materials. If dewatering within the identified contaminated area becomes necessary the holding tanks used for temporary storage of contaminated water pumped from excavations shall be contamination-free and have a minimum capacity of 7,500 liters (2,000 gallons).

Dust Control. The Contractor shall employ dust control measures to minimize the creation of airborne dust during construction process in potentially contaminated areas. As a minimum, standard dust control techniques shall be employed where heavy equipment and the public will be traveling. These may include techniques such as watering-down the site or spreading hygroscopic salts.

Unanticipated Contamination. If the Contractor encounters previously undiscovered contamination or potentially hazardous conditions related to contamination,

the Contractor shall suspend work and secure the area. The contractor will then notify the Engineer immediately. These potentially hazardous conditions include, but are not limited to, buried containers, drums, tanks, "oil saturated soils", strong odors or the presence of petroleum sufficient to cause a sheen on the groundwater. The area of potential hazard shall be secured to minimize health risks to workers and the public and to prevent a release of contaminants into the environment. The source of the suspected contamination will be evaluated by the Engineer (or MDOT's-ENV representative). As appropriate, the Engineer will notify the Maine Department of Environmental Protection's Response Services Unit in Bangor and MDOT's Environmental Office. The Hampden Fire Department and the Maine Fire Marshall's Office must also be notified prior to removal of buried storage tanks and associated piping. The Contractor will evaluate the impact of the hazard on construction, amend the HASP if necessary, and with the Engineer's approval recommence work in accordance with the procedures of this Special Provision.

Method of Measurement. There will be no measurement for identification and environmental screening of contaminated soil material (this will be done by the Engineer or MDOT-ENV representative).

Measurement for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by lump sum.

Measurement of the off site treatment or disposal of Surplus Group 2 and all Group 3 soils will be by the Mega Gram of Special Excavation.

There will be no measurement for construction of a Temporary Secured Stockpile Area. Construction of a Temporary Secured Stockpile Area, if necessary, is considered incidental to project construction. There will be no measurement for hauling Surplus Group 2 material or Group 3 soils to the Temporary Secure Stockpile area or placement and removal of Surplus Group 2 or Group 3 soils in or out of the Temporary Secure Stockpile area. All hauling and any subsequent management/placement of contaminated soils are considered incidental to project construction.

There will be no measurement for additional laboratory testing of contaminated soil that is required by the landfill or treatment facility. Testing is incidental to the disposal of Special Excavation.

There will be no measurement for installation of the seepage control dikes. The seepage control dikes are considered incidental to installation of the stormwater drainage system in **AREA**.

Measurement for the following items shall be according to Subsection 109:04 ("Change Order"/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated ground water.

Basis of Payment. There will be no payment for the identification and environmental screening of contaminated soil material (this will be done by the Engineer or MDOT-ENV representative).

Payment for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by the lump sum

Payment for off site disposal or treatment of contaminated Surplus Group 2 and all Group 3 soils at a MDEP licensed facility shall be by the Mega Gram of Special Excavation.

There will be no payment for installation of the seepage control dikes. The seepage control dikes are considered incidental to installation of the stormwater drainage system in **AREA A**.

There will be no payment for the construction of the Temporary Secured Stockpile Area or hauling/management/placement of contaminated soils to the Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area shall be considered incidental to project construction.

Payment for the following items shall be according to Subsection 109:04 ("Change Order"/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated ground water.

Pay Item		Pay Unit
203.2312	Health and Safety Plan (HASP)	L.S.
203.2333	Disposal/Treatment of Special Excavation	M.G

SPECIAL PROVISION
SECTION 304
AGGREGATE BASE AND SUBBASE COURSE
(Aggregate Subbase)

If the Contractor wishes to route public traffic over the completed aggregate subbase course, the course shall be constructed with a minimum 50 mm [2 in] surcharge above the design grade, except as described below. Whenever the surcharge is used, it shall be constructed with material meeting the requirements of Section 703.06(b), Type D Aggregate. Also, whenever, the surcharge is used, it shall be placed on all the aggregate subbase course subjected to public driveways, sidewalks, approach roads, or the outer portions of the shoulders. Removal of the surcharge shall be followed immediately in succession by the fine grading of the aggregate subbase and construction of the next course.

The furnishing, placing, maintaining, and removal of the surcharge will not be paid for directly, but will be considered incidental to the Aggregate Subbase Course pay item.

If salvaged bituminous pavement is placed as the top layer of the aggregate subbase course, a surcharge is not required.

Supplemental Specification
SECTION 310
PLANT MIXED RECYCLED ASPHALT PAVEMENT

The Special Provision 310 – Plant Mixed Recycled Asphalt Pavement, subsection 310.01 Description, has been deleted and replaced by the following paragraph.

310.01 Description This work shall consist of the removal of the bituminous pavement from the existing roadway in accordance to section 202.061 – Removing Pavement Surface, to the limits specified in the contract, hauling to an approved location to be stockpiled, the processing of the recycled asphalt pavement from the roadway or designated Department supplied stockpile, and the placing of in one or more courses. All plant mixed recycled asphalt pavement shall be placed on an approved base in accordance with these specifications and in reasonably close conformity with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Resident. Excess recycled material not used in the PMRAP process will become the property and responsibility of the Contractor.

January 29, 2004
Supersedes March 24, 2003

SPECIAL PROVISION
SECTION 310
PLANT MIXED RECYCLED ASPHALT PAVEMENT

310.01 Description This work shall consist of the removal of all bituminous pavement from the existing roadway, hauling to an approved location to be stockpiled, the regrading and compacting the existing gravel base to the tolerances shown on the typicals, or as directed by the Resident, the processing of the recycled asphalt pavement from the roadway or designated Department supplied stockpile, and the placing of in one or more courses,. All plant mixed recycled asphalt pavement shall be placed on an approved base in accordance with these specifications and in reasonably close conformity with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Resident. Excess recycled material not used in the PMRAP process will become the property and responsibility of the Contractor.

MATERIALS

310.020 Composition of Mixture The mixture shall be composed as directed in the job mix formula. The recycled asphalt pavement shall be processed by the Contractor so all material will be no larger than 37.5 mm [1.5 in] and stockpiled so as to minimize segregation. The stockpile shall be free of any materials not generally considered to be asphalt pavement. If additional material is required, the material stockpile will be supplied by the State or acquired from the Contractor through the Contract Modification process.

A job mix formula shall be furnished by the Department establishing the percentage of emulsified asphalt, cement, aggregate, and water to be used in the mixture. The JMF additive proportions will be verified by taking a second recycled material sample once the stockpiles have been constructed.

Emulsion, water, aggregate and Portland Cement shall be added in percentage by weight and verified by tank checks done in accordance with the minimum quality control frequencies. Cement additive may be done in dry form or introduced as a mixture with water.

310.021 Emulsified Asphalt The emulsified asphalt shall be grade MS-2, MS-4, CSS-1, or HFMS-2 meeting the requirements of Section 702.04 - Emulsified Asphalt.

310.022 Portland Cement Portland Cement shall be Type I or II meeting the requirements of AASHTO M85-89.

310.023 Water Water shall be clean and free from deleterious concentrations of acids, alkalis, salts or other organic or chemical substances.

310.024 New Aggregate New aggregate, if required by the contract or job mix, shall meet the requirements of Section 411.02 - Untreated Aggregate Surface Course.

EQUIPMENT

310.030 Mixing Plant The mixing plant shall be of sufficient capacity and coordinated to adequately handle the proposed construction. Either a continuous pugmill mixer or a continuous drum type mixing plant shall

be used. If a drum mixing plant is used it shall meet the requirements of Section 401.07. The mixing plant shall be capable of producing a uniform mixture meeting the requirements of the job mix formula.

310.031 Hauling Equipment Trucks used for hauling the mixture shall meet the requirements of Section 401.08.

310.032 Bituminous Pavers Pavers shall meet the requirements of Section 401.09.

310.033 Rollers Rollers shall meet the requirements of Section 401.10.

CONSTRUCTION REQUIREMENTS

310.040 Mixing The recycled asphalt pavement shall be delivered to the mixer at a temperature of not less than 15°C [60°F]. The emulsified asphalt shall meet the mixing temperature requirements listed in Section 702.05 - Application Temperatures. Recycled pavement and emulsified asphalt shall be proportioned and the mixing time set to produce a mixture in which uniform distribution of the emulsified asphalt and coating of the recycled pavement is obtained.

If a drum type mixing plant is used, the recycled asphalt pavement may be heated prior to being mixed with the emulsified asphalt to a temperature not to exceed 90°C [195°F].

Following mixing, the recycled asphalt pavement material shall be directly incorporated into the work. The material shall not be stockpiled longer than 24 hours.

310.041 Weather Limitations The plant mixed recycled asphalt pavement shall not be placed when; (a) the atmospheric temperature, as determined by an approved thermometer placed in the shade at the recycling location, is below 15°C [60°F], (b) when there is standing water on the surface, (c) during wet conditions, or when weather conditions are such that proper pulverizing, adding, mixing, and curing are unfavorable to proper procedures, or compaction cannot be accomplished, (d) when the surface is frozen, or (e) PMRAP operations will not be allowed between September 16th and May 14th inclusive in Zone 1 - Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais. PM-RAP operations will not be allowed between October 1st and April 30th inclusive in Zone 2 - Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.

310.042 Spreading and Finishing The mixture shall be spread and finished in accordance with Section 401.15. Total layer thickness greater than 125 mm [5 in] will be placed in 2 lifts.

310.043 Compaction Compaction of the mixture shall be in accordance with Section 401.16. Rolling may be delayed to avoid lateral displacement as directed by the Resident. See also Section 310.051.

310.044 Joints Joints shall be constructed in accordance with Section 401.17.

310.045 Surface Tolerances The surface tolerances shall be as specified in Section 401.101, except that the maximum allowable variation shall be 10 mm [⅜ in]. The surface tolerance in existing gravel areas covered by PMRAP, with no additional gravel, shall be ± 10 mm [⅜ in].

TESTING REQUIREMENTS

310.050 Quality Control The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The QCP shall meet the requirements of Section 106.6 - Acceptance and this Section. The Contractor shall not begin recycling operations until the Department approves the QCP in writing.

Prior to performing any recycling process, the Department and the Contractor shall hold a Pre-recycle conference to discuss the recycling schedule, type and amount of equipment to be used, sequence of operations, and traffic control. A copy of the QC random numbers to be used on the project shall be provided to the Resident. All field and plant supervisors including the responsible onsite recycling process supervisor shall attend this meeting.

The QCP shall address any items that affect the quality of the Recycling Process including, but not limited to, the following:

a. JMF(s).
b. Mixing details, pugmill type, production rates, material processing.
c. Make and type of paver(s).
d. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers.
e. Testing Plan.
f. Laydown operations including yield monitoring, procedures for avoiding recycling and curing in inclement weather, methods to ensure that segregation is minimized, procedures for mix design modification.
g. Transportation including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished product.
h. Laydown operations including longitudinal joint construction, procedures for avoiding placing in inclement weather, type of release agent used (if required), compaction of shoulders, tacking of all joints, methods to ensure segregation is minimized, procedures to determine the maximum rolling and placing speeds based on best engineering practices as well as past experience in achieving the best possible smoothness.
i. Methods for protecting the finished product from damage and procedures for any necessary corrective action.
j. Method of grade checks.
k. Examples of Quality Control forms.
l. Name and responsibilities of the Responsible onsite Recycling Supervisor.
m. Method for calibration/verification of density gauge.
n. A note that all testing will be done in accordance with AASHTO and MDOT/ACM procedures.
o. Stockpile procedures including moisture control.

The Project Superintendent shall be named in the QCP, and the responsibilities for successful implementation of the QCP shall be outlined.

The Contractor shall sample, test, and evaluate the PMRAP process in accordance with the following procedures and minimum frequencies:

MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Density	1 per 300 m [1000 ft]	ASTM - D2950
Air Temperature	4 per day at even intervals	-
Surface Temperature	At the beginning and end of each days operation	-
Yield of all materials (Both the daily yield and yield since last test)	4 per day	-

The Contractor shall submit all QC test reports and summaries in writing, signed by the appropriate technician, and present them to the Department's onsite representative by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall make all test results, including randomly sampled densities, available to the Department onsite.

The Contractor shall cease recycling operations whenever one of the following occurs:

a. The computed yield differs from the approved Job Mix Formula by 10% or more.

b. The Contractor fails to follow the approved QCP.

c. The Contractor fails to achieve 98% density after corrective action has been taken.

Recycling operations shall not resume until the Contactor and the Department agree on the corrective action to be taken.

310.051 Test strip The contractor shall assemble all items of equipment for the recycling operation on the first day of the recycling work. The Contractor shall construct a test strip for the project at a location approved by the Resident. The test strip section is required to:

A. Demonstrate that the equipment and processes can produce recycled layers to meet the requirements specified in these special provisions;
B. Determine the effect on the grading of the recycled material by varying the forward speed of the paving machine; and;
C. Determine the sequence and manner of rolling necessary to obtain the minimum compaction requirements.

The test strip shall be at least 100 m [300 ft] in length of a full lane-width (or a half-road width).
Full PMRAP production will not begin until a passing test strip has been accomplished. If a test strip fails to meet the requirements of this specification, the Contractor will be required to repair or replace the test strip

to the satisfaction of the Resident. Any repairs, replacement, or duplication of the test strip will be at the Contractor's expense.

Quality Assurance density testing of the recycled material will be performed by the Department using the nuclear method. After the test strip has been placed, it will be rolled as directed until the nuclear density readings show an increase in density of less than 16 kg/m³ [1 pcf] for the final four roller passes. The test strip density will be used as the target density for the recycled material. The remaining PMRAP material shall be compacted to a minimum density of 98% of the target density as determined in the control section.

ACCEPTANCE TEST FREQUENCY

Property	Frequency	Test Method
In-place Density	1/600 meters [2000 feet]	ASTM D2950

310.052 Repairs Repairs and maintenance for the PMRAP layers, during and after the curing period, resulting from damage caused by traffic, weather or environmental conditions, or resulting from damage caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department.

Low areas will be repaired using a hot mix asphalt shim course. Areas up to 25mm [1 in] high can be repaired by milling or shimming with hot mix asphalt. Areas higher than 25mm [1 in] will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

310.06 Curing No new pavement shall be placed on the recycled asphalt pavement until a curing period of (4) four days has elapsed. The curing period begins after being placed in the roadway. When weather conditions are unfavorable, the curing period may be extended by the Resident.

310.07 Method of Measurement Plant Mixed Recycled Asphalt Pavement shall be measured by the square meter [square yard].

310.08 Basis of Payment The accepted quantity of Plant Mixed Recycled Asphalt Pavement will be paid for at the contract unit price per square meter [square yard], complete in-place which price will be full compensation for furnishing all equipment and labor for removing existing pavement, processing, mixing, testing, placing, and compacting, regrading and compacting existing gravel base, excess material relocation, and for all incidentals necessary to complete the work.

Payments will be made under:

Pay Item	Pay Unit
310.23 - 75mm [3 in] Plant Mixed Recycled Asphalt Pavement	Square Meter [yd^2]
310.24 - 100mm [4 in] Plant Mixed Recycled Asphalt Pavement	Square Meter [yd^2]
310.25 - 125mm [5 in] Plant Mixed Recycled Asphalt Pavement	Square Meter [yd^2]
310.26 - 150mm [6 in] Plant Mixed Recycled Asphalt Pavement	Square Meter [yd^2]

Hampden
STP-8593(00)X
Highway Reconstruction
Mill and Overlay
Route 1A
December 31, 2003

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT OVERLAY

Desc. of Course	Grad. Design	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
			Mill and Overlay			
			Mainline Travelway and Shoulders			
Wearing	12.5mm	403.208	N/A	40mm	1	5,7,12
Base	19.0mm	403.207	N/A	60mm	1/more	5,7,11
			Approach Roads			
Wearing	12.5mm	403.208	N/A	40mm	1	5,7,12
Base	19.0mm	403.207	N/A	60mm	1/more	5,7,11
			Mill and Overlay Areas			
Shim (as directed)	9.5mm	403.211	N/A	variable	1/more	2,4,8,10
			Drives, Misc.			
Wearing	9.5mm	403.209	N/A	50mm	2/more	2,3,9,10,13

COMPLEMENTARY NOTES

2. The density requirements are waived.
3. The design traffic level for mix placed shall be <0.3 million ESALS.
5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract.
7. Section 106.6 Acceptance, (1) Method A.
8. Section 106.6 Acceptance, (2) Method B.
9. Section 106.6 Acceptance, (2) Method C.
10. A **"FINE"** 9.5 mm mix with a gradation above or through the restricted zone shall be used for this item.
11. A mixture meeting the gradation of 12.5 mm hot mix asphalt may be used at the option of the contractor.
12. A mixture meeting the gradation of 9.5 mm hot mix asphalt may be used at the option of the contractor.
13. A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 6%, and the limits of Special Provision 401, Table 9 (Drives and Sidewalks) for PGAB content and gradation may be substituted for this item. A job mix formula shall be submitted to the department for approval.

Tack Coat

A tack coat of emulsified asphalt, RS-1 or HFMS-1, Item #409.15 shall be applied to any existing pavement and the at a rate of approximately 0.08 L/m², and on milled pavement approximately 0.2 L/m², prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim / intermediate course and the surface course, at a rate not to exceed 0.08 L/m².
Tack used between new layers of pavement will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION
SECTION 602
FLOWABLE CONCRETE FILL

Description. This work shall consist of providing and placing flowable concrete fill at the locations designated on the plans.

MATERIALS

Materials shall conform to the requirements specified in the following Subsections of Division 700 – Materials:

Portland Cement	701.01
Water	701.02
Air Entraining Admixtures	701.03
Fine Aggregate	703.01
Fly Ash	701.10
Water Reducing Admixtures	701.04
Accelerating Admixtures	AASHTO M-194 Type "C"

CONSTRUCTION REQUIREMENTS

Composition and Proportioning. Flowable concrete fill shall be composed of a homogeneous mixture of Portland cement and/or pozzolans, fine aggregate, water, and chemical admixtures proportioned according to these specifications.

The flowable concrete fill shall be proportioned to produce a 28-day compressive strength of 760 kPa.

The water cement ratio for flowable concrete fill shall not be high enough to cause segregation of the mix.

Air content of 5 – 15% is the target. Higher air contents may be acceptable but will increase set time. All flowable concrete fill shall be air entrained by the addition of an air entraining admixture or other chemical admixtures.

At least 30 days prior to the first placement, a flowable concrete fill mix design shall be submitted by the Contractor to the Department for approval. No flowable concrete fill shall be placed on the project until the mix design is approved by the Department. At a minimum, the mix design submitted by the Contractor shall include the following:

A. Target water cement ratio
B. Target strength
C. Target air content

Quality Control. Process control measurements of air content, mix temperature, and slump shall be performed on the portion or portions of flowable concrete fill batches delivered to the site. At least one set of measurements for air content, temperature, and slump of flowable concrete fill mix shall be performed per placement or per day, whichever is less frequent. Test cylinders will not be required.

Air content shall be measured following the requirements of AASHTO T152 utilizing Type B equipment.

Slump shall be measured by Modified Slump Test as described below:

Apparatus:

Scoop, measuring tape, flat edge, 75 mm x 150 mm cylinder mold open at both ends, and a flat non-absorbent surface.

Procedure:

1. Set cylinder upright on flat non-absorbent surface.
2. Scoop representative sample of flowable concrete fill.
3. Fill the cylinder with the sample in one lift without tamping. Strike off the top with the flat edge to form a level surface.
4. Clear any residue from around the bottom of the cylinder.
5. During a count of three seconds, lift the cylinder straight up allowing the sample to spread on the flat surface.
6. Measure the spread diameter to the nearest 15 mm. A spread of 225-350 mm is considered flowable.

Batching. Measuring and batching of materials shall be performed at an approved batching plant, either commercial or otherwise.

Mixing and Delivery. The Contractor shall provide a Certificate of Compliance as described in Standard Specification 502 Structural Concrete, Section 502.0501 Quality Control METHOD A, METHOD B and METHOD C for each truckload of flowable concrete fill.

Cold Weather Placement. The requirements of Standard Specification 502 Structural Concrete, Section 502.08 Cold Weather Concrete, amended as follows, apply.

The Cold Weather Temperature Table does not apply to flowable concrete fill. The minimum concrete temperature as placed shall be 4.40° C. No housing framework or heating will be required when placed under approved cold weather conditions.

Forms and Containment Berms. When necessary to contain flowable concrete fill within a defined area, berms shall be constructed of compacted granular material.

Placing Flowable Concrete Fill. Flowable concrete fill shall not be placed until forms and/or containment berms have been checked and approved. Flowable concrete fill shall not be placed under water. The method and sequence of placing flowable concrete fill shall be approved by the Department before any flowable concrete fill is placed. A technical representative from the flowable concrete fill supplier shall be present during the initial placement.

All flowable concrete fill shall be placed before it has taken its initial set. Flowable concrete fill shall be placed in such a manner as to avoid separation and segregation of the mix.

Consolidation, tamping, and vibration is not required or allowed.

Flowable concrete fill shall be discharged directly from the truck into the space to be filled. The drop height of the flowable concrete fill shall be as low as practicable. Flowable concrete fill shall not flow down the vertical face of a trench causing erosion of the trench face.

Finishing and curing of flowable concrete fill is not required.

Flowable concrete fill placed will not be opened to traffic or covered with structural concrete or pavement for a minimum of 24 hours.

Method of Measurement. Flowable concrete fill satisfactorily placed and accepted will be measured by the cubic meter, in accordance with the pay limits established, if such limits have been established. If the Contractor elects to omit forms, or berms, then any excavation or flowable concrete fill placed beyond the pay limits indicated on the Plans shall not be paid for, but shall be at the Contractor's expense. In the absence of pay limits, the Resident may use discretion to accept the delivered quantity as the measurement for payment.

Basis of Payment. The accepted work done under flowable concrete fill will be paid for at the contract unit price per cubic meter. Payment will be full compensation for furnishing and placing flowable concrete fill, including all forms, berms, granular material, pumping, dewatering and necessary incidentals.

Payment will be made under:

Pay Item		Pay Unit
602.30	Flowable Concrete Fill	Cubic Meter

Hampden
8593.00
April 10, 2003

SPECIAL PROVISIONS
SECTION 621
LANDSCAPE
(Plant Species Specification and Quantities List)

The following list of items provides the estimated quantities for use on this project. The scientific name of the plant material is provided along with the common name in parenthesis.

The contractor shall follow MDOT Standard Specifications, December 2002, for landscape materials and installation procedures (sec 621).

The MDOT Landscape Architect or his designee will be available to inspect plant materials and stake the location of plant materials at the time of planting.

All shrubs shall be planted in mulched beds 2000 mm o.c.

ITEM NO	Description	Unit	Quantity	Total
621.037	Evergreen Trees (1500 mm -1800 mm) B&B	ea		9
	Picea glauca (Colorado Spruce)		9	
621.178	Md Deciduous Trees (1800 mm – 2400 mm) con	ea		47
	Malus s Dolgo (Dolgo Crabapple)		25	
	Pyrus b. Aristocrat (Aristocrat Ornamental Pear)		22	
621.195	Md Deciduous Trees (45 mm – 50 mm cal) B&B	ea		12
	Amelanchier grandiflora std (Shadbush)		12	
621.267	Lg Deciduous Trees (45 mm - 50 mm cal) B&B	ea		6
	Acer rubrum (Red Maple)		6	
621.54	Deciduous Shrubs (450 mm - 600 mm)	ea		40
	Syringa vulgaris (Common Lilac)		15	
	Ligustrum amurense (Privet)		25	
621.80	Establishment Period	LS	1	1

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

Approaches. Approach signing shall include the following signs shown on the Standard Maintenance of Traffic in Construction Zones for "Project Approach Signing - Two Way Traffic".

Road Work Ahead
Road Work 1000 Feet
Road Work 500 Feet with 25 MPH Advisory Speed Plate
End Road Work

Work Areas. At each work site, signs and channelizing devices as shown on the Standard Maintenance of Traffic in Construction Zones shall be used as directed by the Resident.

Signs include:

End Work Zone Speed
Work Zone
Speed Limit Plate
Fines Double
Give 'Em A Brake
Work Area Ahead with 25 MPH Advisory Speed Plate
Work Area Ahead
One Lane Road Ahead
Flagger Sign
Trucks Entering
Be Prepared to Stop

Other typical signs include:

Pavement Ends
Sidewalk Closed
Sidewalk Closed Use Other Side
Pedestrians Pass at Own Risk
Low Shoulder
Directional Arrows
Bump

The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

The Contractor shall provide a minimum roadway width of 7 m [22 feet] for two way traffic whenever possible and at all times when the Contractor is not working. Where one way traffic is approved by the Resident it shall be controlled through work areas by flaggers and the minimum roadway width shall be 3.5 m [11 feet]. Flaggers equipped with radios, field telephones or other means of direct communication shall be used to control one way traffic during paving operations and at other times when directed by the Resident.

Aggregate subbase course shall be placed as soon as possible after excavation and acceptance of the subgrade, and the "torn up" area left overnight between the beginning of the excavation and the complete aggregate subbase course shall not exceed 15 m [50 feet].

Channelization. Channelization devices shall include the following:

Type I Barricades
Type II Barricades
Vertical Panel Markers
Drums
Cones

Channelization devices shall be installed and maintained at the spacing determined by the MUTCD through the work area.

Channelizing devices consisting of drums or barricades at a maximum spacing of 15 m [50 feet] shall be used in guardrail areas when neither the existing guardrail nor the new guardrail is in place.

Paving. When paving operations or shoulder grading leave a 75 mm [3 inch] or less exposed vertical face at the edge of the traveled way, channelizing devices shall be placed two feet outside the edge of pavement at intervals not exceeding 200 m [600 feet] and a 1200 mm x 1200 mm [48 inch x 48 inch] W8-9 Low Shoulder sign shall be placed at a maximum spacing of 0.8 km [1/2 mile].

When paving operations leave more than a three inch exposed vertical face at the edge of a traveled way, the Contractor shall place shoulder material for a width of at least four feet to meet the pavement grade and place channelizing devices as above before the lane is opened to traffic.

Temporary Centerline. A temporary centerline of reflectorized traffic paint shall be marked each day on all new pavement to be used by traffic. The temporary centerline shall conform to the standard markings patterns used for permanent markings and will be paid for under Pay Item 627.78.

Failure to apply a temporary centerline daily will result in suspension of paving until temporary markings are applied to all previously placed pavement.

Roadside Recovery Area. The Contractor shall not store material nor park equipment within 3 m [10 feet] of the edge of the established travel lanes and equipment parked overnight within 7.5 m [25 feet] of the edge of a travel lane shall be clearly marked by channelizing devices or other reflective devices.

Speed Limits in Work Zone. The Contractor shall sign all approved reduced speed limits on construction projects according to APM #431 - A Policy on the Establishment of Speed Limits in Work Zones.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sediment Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The "Table of Contents" of the latest version is dated "1/19/00" (available at http://www.state.me.us/mdot/mainhtml/bmp/bmpjan2000.pdf.) **Procedures specified shall be according to the BMP Manual unless stated otherwise.**

Any and all references to "bark mulch" or "composted bark mix" shall be a reference to " Erosion Control Mix" in accordance with *Standard Specification, Section 619 - Mulch.*

Project Specific Information and Requirements

The following information and requirements apply specifically to this Project. The temporary soil erosion and water pollution control measures associated with this work shall be addressed in the SEWPCP.

1) This project is in the Penobscot River watershed, which is listed as an Outstanding River Segment near the project and is considered **SENSITIVE** in accordance with the BMP Manual. The Contractor's SEWPCP shall comply with Section II.B., Guidelines for Sensitive Waterbodies in the BMP Manual.

2) Newly disturbed earth shall be mulched by the end of each workday. Mulch shall be maintained on a daily basis.

3) The SEWPCP shall describe the location and method of temporary erosion and sediment control for existing and proposed catch basins, outlet areas and culvert inlets and outlets.

4) **If water is flowing within the drainage system, the water shall be diverted to a stable area or conduit and work shall be conducted in the dry.** The Contractor's plan shall address when and where the diversions will be necessary.

5) Dust control items other than those under *Standard Specification, Section 637 – Dust Control* , if applicable, shall be included in the plan.

6) Permanent slope stabilization measures shall be applied within one week of the last soil disturbance.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

7) Permanent seeding shall be done in accordance with *Standard Specification, Section 618 - Seeding* unless the Contract states otherwise.

8) Culvert inlet and outlet protection shall be installed within 48 hours of culvert installation, or prior to a storm event, whichever is sooner.

9) After November 1 the Contractor shall use winter stabilization methods, such as Erosion Control Mix as specified in *Standard Specification, Section 619 - Mulch*. If required, spring procedures for permanent stabilization shall also be described in the plan. Use of this product for over-winter temporary erosion control will be incidental to the contract and be paid for as part of Pay Item 656.75.

10) All disturbed ditches shall be stabilized by the end of each workday. Stabilization shall be maintained on a daily basis.

11) Erosion control blanket shall be installed in the bottoms of all ditches except where a stone lining is planned. Seed shall be applied prior to the placement of the blanket.

12) If check dams are used, they shall be constructed of stone in accordance with BMP Manual, Section 9. *Hay Bale Temporary Check Dams* **are not allowed**. Delete all reference to them in Section 9.

13) If a cofferdam sedimentation basin is used, it shall be located in an upland area where the water can settle and sink into the ground or be released slowly to the resource in a manner that will not cause erosion. The location of such a cofferdam sedimentation basin shall be addressed in the SEWPCP.

SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 DESCRIPTION

A. Scope: This Section describes the measurement and payment for the Work to be completed under each Base Bid item in the Proposal. The descriptions may not reference all of the associated Work. Work specified but not specifically designated as a Proposal item is considered incidental to all Proposal items.

B. Payment Procedures are described in the agreement, General Conditions and related documents.

1.02 DESCRIPTION OF BASE BID ITEMS

A. Item 827.301- Rock Excavation Water Main

1. Payment: Unit price per cubic meter as stated in the Proposal for all rock excavation required for installation of piping, etc.
2. Measurement: Measurement in place prior to excavation within pay limits shown on the Drawings or as Specified.
3. Includes: drilling and blasting, excavation, removal, disposal of rock and boulders greater than 1.5 cubic meters each and replacement as necessary with suitable material as directed by the ENGINEER.

B. Item 827.311- Unsuitable Soil Excavation, Remove and Refill

1. Payment: Unit price per cubic meter as stated in the Proposal.
2. Measurement: As measured by the ENGINEER within the limits as Specified or directed.
3. Includes: Excavation and replacement of materials determined by the ENGINEER as unsuitable for pipe or structure subgrade.

C. Item 803.01- Test Pits

1. Payment: Unit price per each as stated in the Bid.
2. Measurement: Measured as units.
3. Includes earthwork, surface restoration, to perform test pits shown on the Drawings and as directed by the ENGINEER.
4. Schedule of payment: Test pit - 100%

D. Items 822.36, 822.34 & 822.33 - 300 mm, 200 mm and 150 mm CL 52 D.I. Pipe

1. Payment: Unit price per meter as stated in the Proposal. For the purpose of partial payment, the following schedule shall apply:

Installation and backfill	70%
Successful testing and disinfection	25%

Satisfactory cleanup and surface restoration 5%

2. Measurement: As measured along the horizontal projection of the centerline of the pipe.

3. Includes: Excavation, backfill, concrete, flowable fill, shoring and bracing, dewatering, bedding, pipe, fittings, thrust blocks, disinfection, and all other materials and labor required to provide a complete installation not specified elsewhere.

E. Items 823.31, 823.325, and 823.331- 300 mm, 200 mm and 150 mm Gate Valves

1. Payment: Unit price per each as stated in the Proposal.

2. Measurement: Measured per each unit installed.

3. Includes: Provide valve and valve box, providing one valve box wrench to be used for all gate valves, surface restoration, and all other materials and labor required to provide a complete installation as specified and shown on the Drawings. Gate valves for hydrants are not included in this item and shall be included in Item 824.30 - Provide Hydrants.

F. Item 824.30- Fire Hydrant

1. Payment: Unit price per each as stated in the proposal.

2. Measurement: Measured per each unit installed.

3. Includes: Provide all fittings, pipe, hydrant, hydrant tee, 150 mm gate valve, valve box, hydrant extensions if necessary, thrust blocks, accessories, earthwork and materials, and all other materials and labor required to provide a complete hydrant tee, valve, and hydrant installation as specified and shown on the Drawings. CONTRACTOR shall remove and salvage the existing hydrant and gate valve and provide to the OWNER at the completion of the project.

G. Items 825.41, 825.43 and 825.42- 19 mm, 25 mm and 50 mm Copper Services

1. Payment: Unit price per meter as stated in the Bid.

2. Measurement: As measured in place along the horizontal centerline of the water service from centerline of new 300 mm water main to existing water service as shown on the Drawings.

3. Includes: Provide water service pipe, fittings and valves, pipe unloading, stringing, earthwork, backfill, shoring and bracing, installation of pipe, fittings and valves, dewatering, thrust blocks, disinfection, testing and appurtenances for 19 mm, 25 mm , and 50 mm copper service lines as specified and as shown on the Drawings or as directed by ENGINEER. Some of the services will involve only connection of the existing copper services to the proposed water main.

4. Schedule of Payment: Installation - 75%; testing & disinfection - 25%.

H. Item 825.312, 825.331, and 825.322 - 19mm, 25 mm, and 50 mm Curb Stops

1. Payment: Unit price per each as stated in the Bid.

2. Measurement: Measured per each unit installed.

3. Includes: Provide curb stop, service box, service rod, all earthwork, shoring and bracing, and all other materials and labor required to provide a complete curb stop installation not

specified elsewhere. Some of the services may involve only the relocation of the curb stop in anticipation of the MDOT road reconstruction project. The CONTRACTOR will coordinate with the OWNER to determine which services need a new relocated curb stop only.

I. Items 825.311, 825.33, and 825.32 - 19 mm, 25 mm, and 50 mm Corporations.

1. Payment: Unit price per each as stated in the Bid.

2. Measurement: Measured per each unit installed.

3. Includes: Provide corporation, earthwork, backfill, shoring and bracing, installation of corporation, fittings and valves, dewatering, thrust blocks, disinfection, testing and appurtenances for 19 mm, 25 mm , and 50 mm curb stops as specified and as shown on the Drawings or as directed by ENGINEER.

J. Item 823.3254, and 823.3257 -200 mm and 150 mm Insertion Valves

1. Payment: Unit price per each as stated in the Bid.

2. Measurement: Measured per each unit installed.

3. Includes: All labor equipment, and materials required to provide 200 mm and 150 mm insertion valves, earthwork, backfill, shoring and bracing, installation of valve, and fittings, dewatering, thrust blocks, disinfection, testing and appurtenances as specified and as shown on the Drawings or as directed by ENGINEER.

K. Item 803.1361 - 300 mm Service Lateral Sta 6+678

1. Lump Sum: As stated in the bid form.

2. Measurement: Determine Value of the Work completed to date and approved by the Engineer.

3. Includes: All labor, materials and equipment, 300 mm tees, fittings, 300 mm gate valve, excavation, backfill, dewatering, shoring and bracing, installation of materials, thrust blocks, disinfection, testing, and all appurtances as specified and as shown on the drawings or as directed by the Engineer.

L. Item 803.1351 - 150 mm Service Lateral Sta 6+265

1. Lump Sum: As stated in the bid form.

2. Measurement: Determine Value of the Work completed to date and approved by the Engineer.

3. Includes: All labor, materials and equipment, 160 mm tees, fittings, 150 mm gate valve, excavation, backfill, dewatering, shoring and bracing, installation of materials, thrust blocks, disinfection, testing, and all appurtances as specified and as shown on the drawings or as directed by the Engineer.

M. Item 403.207 - Hot Mix Asphalt 19.0 mm

1. Payment: Unit price per mega gram as stated in the bid form.

2. Measurement: Per truck weight slip delivered and installed.

3. Includes: Aggregate base, subbase, pavement, testing, and all other material and labor as required to provide a complete installation as specified or Directed by the Engineer.

N. Item 827.33- Trench Insulation

1. Payment: Unit price per meter as stated in the Proposal. Unit price is for 50 mm thick insulation by 1.2 meter wide insulation.

2. Measurement: Measured in place as shown on the Drawings or as directed by the ENGINEER.

3. Includes: Insulation over pipe as shown on the Drawings or as directed by the ENGINEER in the field.

O. Item 832.07- Testing Allowance

1. Payment: Lump Sum. Actual costs incurred.

2. Measurement: Submit bills from testing firm.

3. Includes: Testing costs, such as compaction tests, etc., that are specified as OWNER's responsibility shall be paid for by the CONTRACTOR using the allowance allotted in this item. All testing costs specified as the CONTRACTOR's responsibility shall remain so and in no way shall the included allowance be used for such costs. All testing costs shall be billed directly to CONTRACTOR, and a final Charge Order will be issued balancing the actual testing costs to the OWNER, and stated allowance.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 GENERAL:

A. Measurement: Notify ENGINEER when necessary measurements must be taken. Do not proceed until measurements have been taken.

B. Submit EJCDC No. 1910-8-E Application for Payment for completed and measured items. In addition to supporting documentation, CONTRACTOR shall complete and submit with each Application for Payment, a Survey Tie Sheet for each utility structure, pipe and appurtenance installed since submission of the previous Application for Payment. Applications for Payment submitted without the necessary Survey Tie Sheets shall be considered incomplete by the ENGINEER and shall be returned to the CONTRACTOR.

END SECTION

SECTION 02665 - WATER DISTRIBUTION PIPING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK: Water distribution piping includes:

A. Supply and installation of all distribution piping as noted on the Drawings.

B. Location of existing utilities prior to construction.

C. Repair of water piping damaged during construction.

D. Connection to existing water mains.

E. Installation of valving, all appurtances, and accessories.

F. Installation of new hydrants as noted on the Drawings.

G. Flushing, testing and disinfection.

1.02 RELATED WORK:

A. Section 02200 – Earthwork.

1.03 QUALITY ASSURANCE:

A. Code Compliance: Comply with State Plumbing Code and local plumbing codes where more stringent. Comply with Maine Department of Human Services, Division of Health Engineering rules.

B. AWWA Standards: Comply with requirements of Section 4 of AWWA C601, "Preventive Measures During Construction" for cleanliness.

C. Testing: CONTRACTOR shall pay for all flushing, pressure and leakage testing, disinfection, bacteria testing, fire flow testing and water used.

1.04 SUBMITTALS: Submit manufacturer's product data and installation instructions for each product specified for water service piping.

PART 2 - PRODUCTS

2.01 PRESSURE PIPE:

A. General: Provide fittings and other required piping accessories of same type and class of material as conduit, or of material having equal or superior physical and chemical properties.

B. Copper Tube: Type K conforming to ASTM B88, with compression fittings conforming to ANSI/AWWA C800 as manufactured by Mueller or approved equal.

C. Ductile Iron Pipe: Push-on joints, AWWA C111, unless indicated otherwise, centrifugally cast bituminous-coated, double cement-lined (AWWA C104), seal-coated and manufactured in accordance with the latest revision of AWWA Standards C150 and C151. Pipe shall be Class 52 unless indicated otherwise. Weight, class, manufacturer's mark, year of production, and "DI" or "Ductile" shall be cast or stamped on the pipe.

D. Pipe Couplings: Sleeve shall be ductile iron ASTM A536, and shall have smooth inside taper for uniform gasket seating. Gasket shall be grade 30. Follower flanges shall be ductile cast iron ASTM A536. Bolts shall be high strength low alloy steel with heavy, semi-finished hexagon nuts to ANSI/AWWA C111/A21.11 standards. OD range shall be approved by the Hampden Water District. Ford coupling, Smith-Blair coupling, or approved equal.

E. Pipe Fittings: Pipe fittings shall have mechanical joint ends conforming to ANSI/AWWA C1/A21.11, double cement lining and bituminous coating conforming to ANSI/AWWA C104.A21.4 or fusion bonded epoxy coat (6-8 mil nominal thickness) conforming to ANSI/AWWA C550 & C116/A21.16.

Fittings shall be supplied with mechanical joint accessories unless specified others, with high strength low alloy steel bolts and heavy hexagon nuts conforming to ANSI/AWWA C111.A21.11.

Long body fittings shall be Class 350 ductile iron conforming to ANSI/AWWA C110/A21.10.

Fittings conforming to ANSI/AWWA C153/A21.53 will not be allowed.

F. Repair Sleeves: Shall have single band of 304 stainless steel with malleable iron ASTM A47 grade 32510 lungs, grade 30 gasket and high strength low alloy steel bolts with heavy semi-finished hexagon nuts conforming to AWWA/ANSI C111.A.21.11 or 3904 stainless steel bolts and nuts as manufactured by Smith-Blair 226 or approved equal.

G. Retainer Glands: Mechanical joint retainer glands shall be heavy duty ductile iron body, UL or FM approved, and shall have a minimum working pressure rating as follows:

101 mm	24.5 kilograms per cm^2
150 mm	24.5 kilograms per cm^2
200 mm and larger	17.5 kilograms per cm^2

Set screws shall be either "Cor-Ten" steel, ductile iron, or approved equal. The number of set screws shall be equal to or greater than the number of nominal diameter of the gland (i.e. four-inch, four sets of screws; six-inch, six set of screws). Locking rings and mega lugs are acceptable replacements for retainer glands, but are not a replacement for thrust blocks.

H. HDPE Pipe: High Density Polyethylene Pipe meeting AWWA C906 equal to Blue stripe NSF by Plexco. Material shall be PE 3408 HDPE. Provide transition couplings and stiffeners as recommended by pipe manufacturers. Provide SDR as shown on the Drawings.

2.02 VALVES, FITTING, CLAMPS, ETC.:

A. General: All products used in the construction that come in contact with drinking water shall meet the National Sanitation Foundation Standard 61 for Drinking Water System Components - Health Effects. The products and/or materials covered include, but are not limited to, protective materials (coatings, linings, liners, etc.), joining and sealing materials (solvent cements, welding materials, gaskets, etc.), and mechanical devices used in transmission/distribution systems, (valves, etc.).

Miscellaneous brass goods shall be 57 Kgs., lead free, red brass with iron pipe threads when used for connecting water services. Items included are bushings, couplings, elbows, nipples, plugs, and tees. Manufactured by Mueller, or approved equal.

B. Fittings: All fittings shall be MJ Class 350 ductile iron and shall comply with AWWA C-153, AWWA C-111 and shall be cement lined as per AWWA C-104. All bolts for MJ fittings shall be Corten. Hydrant tees shall be MJ anchoring tees.

C. Valves: Valves shall be epoxy coated and supplied with mechanical joint accessories, high strength alloy steel bolts and heavy hexagon nuts conforming to ANSI/AWWA C111.A21.11.

Valve seal plate and bonnet shall have either all silicone bronze or 316 stainless steel bolts and nuts.

Gate Valve: (300 mm diameter or less): Shall be 1380 kPa working pressure, non-rising stem, "O" ring, open right, mechanical joint, two-inch ductile iron operating nut with stainless steel bolt, either compound slide wedge mechanism metropolitan design conforming to ANSI/AWWA C500 or resilient seated gate valve conforming to ANSI/AWWA C509, manufactured by Waterous Series 500, American-Darling CRS 80, Mueller A 2360, or approved equal.

D. Corporation Stops 19mm and 25mm shall be lead free brass, ball valve type construction with inlet CC thread and compression pack joint on the outlet, heavy patterns, and conforming to AWWA/ANSI C800.

39 mm and 50 mm shall be lead free brass with inlet iron pipe thread and compression pack joint on the outlet, heavy patterns, and conforming to AWWA/ANSI C800.

Manufactured by Ford, Mueller, or approved equal.

E. Curb Stop: Shall be lead free brass, ball valve type, or approved equal with compression pack joints on either end and stainless steel rod. Open left, no drain, heavy patterns, and conforming to AWWA/ANSI C800.

Manufactured by Ford, Mueller, or approved equal.

F. Duc Lug and Tie Bolts: Tie bolts with hexagonal nuts shall be Star Supply Corp. or approved equal.

Duc lug bolts shall be Star Supply Corp. or approved equal.

G. Repair Clamps: Equal to Ford all stainless steel clamps, 50mm - 300mm diameter; brass, CPPJ - CPPJ, 19mm - 50mm diameter.

All fittings, exclusive of hydrants, shall include mechanical joint restraints, "Grip Ring" or "Mega lug".

H. Repair Couplings: Equal to Rockwell cast couplings, 50 mm - 300 mm diameter; brass, CPPJ - CPPJ, 19mm-50mm diameter.

I. Valve Boxes: Shall be cast iron, manufactured in America, two piece, sliding type with a flange top section, no inside stops, and an outside shaft diameter of six inches. Bottom section shall be belled base. Length of top section shall be minimum of 60 cm. Middle and bottom section length as needed. Boxes shall have the word "WATER" clearly cast into the cover.

J. Valve Box Wrench: Provide one 2.4-meter long valve box wrench for 50 mm square gate valve nut.

K. Couplings: Solid sleeve MJ couplings or approved equal.

L. Insertion Valve: 150 mm and 200 mm QuikValve (Line Stop) by EJP or approved equal.

2.03 ACCESSORIES:

A. General: Provide anchorages for tees, plugs, and caps. After installation, apply a full coat of asphalt or other acceptable corrosion-retarding material to surfaces of rods and clamps.

B. Clamps, Straps and Washers: Steel, meeting or exceeding all requirements of the latest revision of ANSI/ASTM A506.

C. Rods: Stainless steel, meeting or exceeding all requirements of the latest revision of ANSI/ASTM A575.

D. Rod Couplings: Malleable iron, meeting or exceeding all requirements of the latest revision of ANSI/ASTM A197.

E. Cast Iron Washers: Meeting or exceeding all requirements of the latest revision of ANSI/ASTM A126, Class A.

F. Thrust Blocks: Shall be as shown on Drawings.

G. Pipe Lubricant: Suitable for use in potable water supply.

H. Trench Insulation: Shall be polystyrene foam insulation board equal to Styrofoam SM brand as manufactured by the Dow Chemical Co. or approved equal. Average compressive strength shall equal 276 kPa with minimum of 173 kPa.

I. Polyethylene Encasement: Shall be 8-mil LD or 4-mil HDCL polyethylene material meeting or exceeding all requirements of the latest revision of ANSI/AWWA C105/A21.5.

J. Casing (for HDPE Pipe): Steel pipe. ASTM A53, Class XS, 241,500 kPa minimum, 13 mm wall thickness. Joints shall be butt welded in accordance with AWWA C206, Standard for Field Welding of Steel Water Pipe Joints.

2.04 HYDRANTS:

A. General: Hydrants shall be compression type conforming to AWWA/ANSI C502. Hydrants shall be Mueller Centurion 250 with the following requirements:

1. Break flange construction
2. 133 mm main valve
3. Non self-draining – drain hole plugged
4. Two 63.5 mm hose nozzles (National Standard Thread)
5. One 114 mm pumper nozzle (National Standard Thread)
6. Inlet connection – mechanical joint
7. Inlet connection size – six-inch
8. Direction of opening – Right
9. Operating nut – 38 mm-inch pentagon pattern (National Standard)
10. Trench depth – as specified on plans
11. Hydrant color – Yellow
12. Packing – "O" ring
13. Nozzle cap chains
14. Stainless steel nuts and bolts
15. Supplied with mechanical joint accessories, high strength low alloy steel bolts, and heavy hexagon nuts conforming to ANSI/AWWA C111/A 21.11.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. General: Install products in compliance with manufacturer's instructions. Provide restrained joints and thrust blocks at all fittings as detailed on the Drawings. Install all pipes in the dry. Prevent introduction of any groundwater or foreign materials into pipe during construction. Provide watertight plug in ends of pipe at all times when construction is not in progress. Coordinate all work with the Hampden Water District. Existing water mains shall remain active at all times. CONTRACTOR shall coordinate connection of existing services to the new water main with Hampden Water District.

B. Excavation: In general, pipe is to be laid at a depth that would be equal to installing the pipe with a depth of cover of two (2) meters. Where existing or proposed pipes, conduits, culverts, cables, wires, etc. interfere with laying at this depth, the water pipe shall be laid at greater depth to clear the obstruction by at least three hundred (300) mm, where practical. Excavation shall be kept free of water and special precautions shall be taken to prevent entry of water, mud or other foreign substances into the line. Temporary caps shall be installed over all openings at the end of each day, when the work is suspended for period of 30 minutes or more (including lunch hours), or whenever necessary to protect the work in progress. Pipes shall be carefully lowered into the excavation, be guided into proper position, and joined to the preceding length or fitting. Suitable excavated material (i.e. free of stones and capable of being properly compacted) or borrow shall be placed and tamped under and around the pipe, taking care to maintain equal depth on both sides and to prevent movement of the pipe from its proper alignment. Where directed by the ENGINEER, due to soft or otherwise unsuitable bottom conditions, pipe bedding shall be placed in accordance with the crushed stone.

All pavements to be removed shall be sawn or uniformly trimmed (for concrete) at the pavement excavation pay limits prior to excavation unless otherwise approved by the ENGINEER.

The CONTRACTOR shall note that in some areas underground sewer mains and services, storm drains, telephone or communications cables, gas lines, and other below-ground utilities may exist in close proximity to the work. Effort has been made to indicate on the plans the approximate location of such utilities but this information is not guaranteed either as to accuracy or completeness. It shall be the CONTRACTOR's responsibility to make a closer determination of the presence and location of all utilities known or suspected to be in close proximity to the work.

Excavation around other utilities, pipes, culverts, and similar installations shall be done with extreme care. It shall be the CONTRACTOR's responsibility to contact the OWNER/operator of each utility to be encountered and obtain information relative to location and depth before excavating in the area. The CONTRACTOR shall promptly notify the Utility OWNER concerned in the event of damage occurring during construction, whether caused by him or others.

In the event that underground utilities conflict with the location of the work, the CONTRACTOR shall promptly notify the ENGINEER and shall not disturb the conflicting utility until given specified instruction specifying the action to be taken.

Private utility (building drains, etc.) encountered in the work shall be brought to the attention of the ENGINEER and be handled in such manner as he directs.

Property owner's whose driveways will be blocked for a short period of time will be notified 24 hours in advance of the excavation so that vehicles can be removed when necessary. Driveway shall not be blocked at night without the expressed consent of the property owner.

C. Preparation of Water Line Trench Bottom: Pipe shall be laid directly on trench bedding containing coupling holes and shaped to provide continuous contact for the pipe barrel between coupling holes.

D. Bedding of Pipe: Buried ductile iron pipe shall be laid in accordance with AWWA C600 at the depth shown on the Drawings. At bell ends, holes shall be provided so that pipe lays flat on trench bedding. Refer to trench detail on Drawings.

E. Cutting Pipe: All cutting of iron pipe shall be done using an electrically, pneumatically, or gasoline operated machine. Blades shall be carbide tipped for cutting cement-lined iron pipe or abrasive type for proper material being cut. The machine used shall be portable saw equal to those made by Fein, Wache, or Homelite. When the cut end is to be used as a "Bell-Tite" or "Tyton" joint, it shall be tapered back on the outside of the cut about 3.2 mm, at an angle of about 30 degrees with the pipe center. This shall be done with a course file or portable grinder.

F. Connection to Existing Water Main: The CONTRACTOR shall locate and confirm sizes and materials of existing mains, excavate, cut out a section of existing main, install a tee, pipe, couplings and a valve, and backfill the excavation. The CONTRACTOR shall provide all materials, including mechanical joint accessories, valve boxes, and other items necessary to

make all joints watertight and provide complete and effective connections to existing water mains. Existing water main shall remain active at all times.

G. Cleaning: Clear interior of pipe of dirt and other superfluous material as work progresses. Place plugs in end of uncompleted pipe whenever work stops.

H. Coordinate connections to existing water mains with the OWNER of the water mains. Provide 48 hours notice prior to such work. The CONTRACTOR is responsible for the cost and all work associated with connection to existing mains unless otherwise noted.

3.02 FLUSHING:

A. General: At completion of water service installation, flush and disinfect in conformance with AWWA C601. Prevent contaminated or highly chlorinated water from entering new or previously disinfected mains.

B. Flushing and Draining: Flush using water from existing main. CONTRACTOR shall coordinate with OWNER to obtain all water required. Provide a minimum flushing velocity within the pipe of 0.76 meters per second. CONTRACTOR to dispose of all water flushed from mains in accordance with applicable laws and regulations.

3.03 TESTING: Pressure and Leakage Testing.

A. CONTRACTOR to provide all labor, equipment, material, gauges, pumps, etc. to test for leaks in accordance with AWWA Standard C600 as follows:

1. Test newly laid pipe and valved sections at hydrostatic pressure of 13 kilograms per square centimeter.

    a. Test pressure: System shall be tested at a hydrostatic test pressure of thirteen (13) kilograms per square centimeter.
    b. Test pressure: Not to exceed pipe or thrust restraint design pressures.
    c. Test duration: 2 hours, minimum.
    d. Pressure variation tolerance: less than +.35 k/cm^2.
    e. Test pressure not to exceed valve or hydrant pressure ratings on sections including closed valves or hydrants.

2. Pressurization of Pipe:

    a. Fill each valved pipe section slowly with water at specified test pressure.
    b. Apply by means of pump or other approved method.

3. Air Removal:

    a. Expel all air from pipe, valves, and hydrants before applying test pressure.
    b. Install corporation stops at high point to vent air if no release valves available.
    c. After air removal close stops and apply test pressure.
    d. After test, remove stops and plug holes or leave stops in place permanently if directed by ENGINEER.

4. Examination:

   a. Examine exposed pipe, fittings, valves, hydrants, and joints during test.
   b. Repair or replace defective appurtenances discovered during test.

5. Leakage Test:

   a. Leakage: Quantity of water supplied to pipe test section to maintain pressure within +.35 k/cm^2.

   b. Leakage shall not exceed the following limits:

$$L = \frac{SD\sqrt{P}}{133{,}200}$$

   L = allowable leakage, in gallons per hour (gph)
   S = length of pipe tested in feet
   D = nominal pipe diameter, in inches
   P = average pressure during test, in pounds per square inch (gauge)

   c. When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gph/inch of nominal valve size shall be allowed.
   d. Repair visible leaks regardless of leakage amount.
   e. If failing leakage tests:
      1. Locate and correct leak.
      2. Repeat leakage test until passing test attained.

B. OWNER to perform operational testing of valves by opening and closing under water pressure to insure proper operation.

3.04 DISINFECTION:

A. Disinfection Method: Disinfection shall be done by CONTRACTOR using continuous feed method of chlorination. Concentration shall be maintained at a minimum of 50 mg/l available chlorine. Section of pipe to be isolated for existing water mains to prevent treatment dosage from flowing back into line supplying water. Chlorinated water shall remain in main for at least 24 hours. At the end of the 24-hour period, the treated water shall contain no less than 25 mg/l of available chlorine. At the end of the retention period, the chlorination water shall be flushed from the main until chlorine in the water leaving the main is less than 1 mg/l. Dechlorination of disinfected water shall be required. Once CONTRACTOR has flushed line the ENGINEER will take a sample for testing. Testing to be done at State certified laboratory. CONTRACTOR shall pay for all testing. CONTRACTOR to dispose of all water flushed from mains in accordance with applicable laws and regulations.

B. Provide injection tap at one end of the new line and a sampling/flushing tap at the other end. Take one sample as described in Section 9 of AWWA C601.

C. Equipment: Provide water pumps with adequate metering devices. Provide chlorine injection pumps or chlorinators that allow accurate measurement of chlorine being introduced to water service.

*** END OF SECTION ***

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK:

A. Work included: All excavating, filling, backfilling, and removal of materials.

Earthwork for utilities is included in this section.

1.02 PROTECTION:

A. Paved surfaces: Do not operate equipment on paved surfaces which will damage these surfaces.

B. Maintain excavations with approved barricades, lights, and signs to protect life and property until excavation is filled and graded to a condition acceptable to the ENGINEER.

C. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

D. Provide Preblast Survey in accordance with 3.02A of this section.

1.03 QUALITY ASSURANCE:

A. Testing and Inspection: CONTRACTOR will pay for all aggregate gradation testing. OWNER will pay for moisture maximum density tests and field compaction tests except as otherwise noted in this section.

B. Seismic and Preblast Survey Firm: Company specializing in seismic surveys with five years documented experience.

C. Explosives Firm: Company specializing in explosives for disintegration of subsurface rock with five years documented experience.

D. If there is a discrepancy between these specifications and the MDOT specifications, the MDOT specifications will supersede.

1.04 REFERENCES:

A. NFPA 495 - Code for the Manufacturer, Transportation, Storage, and Use of Explosive Materials.

1.05 REGULATORY REQUIREMENTS:

A. Conform to applicable codes & NFPA 495 for explosive disintegration of rock.

B. Obtain permits from authorities having jurisdiction before explosives are brought to site or drilling is started.

1.06 SUBMITTALS:

A. Test Reports: Submit the following:

Reports on material gradations.

B. Blasting Records: See paragraph 3.02B.

1.07 JOB CONDITIONS:

A. Site Information: Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil borings. It is expressly understood that OWNER will not be responsible for interpretations or conclusions drawn therefrom by CONTRACTOR. Data is made available for convenience of CONTRACTOR.

Additional test borings and other exploratory operations may be made by CONTRACTOR at no cost to OWNER.

B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

C. Test Pits: Excavate test pits where shown on the Drawings or as directed by the ENGINEER. Comply with earthwork requirements of this section. Payment will be made in accordance to Section 01025.

D. Use of Explosives: Permitted, see Part 3 - Execution for requirements.

PART 2 - MATERIALS

2.01 MATERIALS:

A. General:

1. Suitable materials: As shown on the Drawings or as specified.
2. Unsuitable materials: Material containing excessive plastic clay, vegetation, organic matter, debris, pavement, stones or boulders over 150 mm in greatest dimension, and frozen material. Material which, in the opinion of the ENGINEER, will not provide a suitable foundation or subgrade.
3. On-Site Material: Any suitable material from on-site excavation.
4. Material for embankments and general fills may contain pieces of excavated ledge having a greatest dimension of up to 150 mm if approved by the ENGINEER.
5. Inspection: The ENGINEER may inspect off-site sources of materials and order tests of these materials to verify compliance with these Specifications.

B. Gravel (Aggregate Subbase): Hard, durable stone with coarse to fine sand. All particles shall pass the 150 mm sieve and meet MDOT "Standard Specification" Section 703.06 Type D aggregate. That portion which passes the 75 mm sieve shall have the following sieve analysis by weight:

Sieve size	% Passing
75 mm	100
6.3 mm	25-70
425 µm	0-30
75 µm	0- 7

C. Sand: Sieve analysis by weight:

Sieve Size	Max % Passing by Weight
9.5 mm	100
4.75 mm	95-100
1.18 mm	50- 85
150 µm	2- 10

D. 19 mm Crushed Stone: Durable, clean angular rock fragments obtained by breaking and crushing rock material. Sieve analysis by weight:

Sieve Size	Max % Passing by Weight
25 mm	100
19 mm	95-100
12.5 mm	35- 70
9.5 mm	0- 25
75 µm	0- 2

E. 39 mm Crushed Gravel: Well graded hard, durable particles. Sieve analysis by weight:

Sieve Size	Max % Passing by Weight
50 mm	100
4.75 mm	5
75 µm	10

F. Refill Material: Crushed stone for refilling excavation below grade or rock excavation unless otherwise directed by the ENGINEER.

G. Common Borrow: Earth suitable for embankment construction free from frozen material, perishable rubble, peat and other unsuitable material.

Moisture content: Sufficient to provide required compaction and stable embankment but not exceeding 4% above optimum as determined using AASHTO T180, method C or D.

H. Select Backfill: Use gravel as specified above.

I. Underdrain Filter Sand: Granular material for underdrain shall be free from organic matter and shall conform to the MDOT "Standard Specifications" Section 703.22 for underdrain Type B. Sieve analysis by weight:

Sieve Size*	Max % Passing by Weight
19 mm	95-100
12.5 mm	75-100
4.75 mm	50-100
850 µm	15- 80
300 µm	0- 15
75 µm	0- 5

PART 3 - EXECUTION

3.01 EXCAVATION:

A. General: Remove all materials encountered to the limits shown on the Drawings, or designated in the Specifications.

B. Classifications: The following classifications of excavation may be made which will be paid for on a unit cost basis:

Rock Excavation

Excavation below normal grade

Select backfill

Measurement and payment for these classifications are described in Section 01025.

Do not perform rock excavation or excavation of unsuitable materials until material to be excavated has been cross-sectioned and classified by ENGINEER.

Predrilling and blasting of bedrock through overburden may be allowed. However, if this method is used, the rock excavation quantities will be adjusted downward in proportion to the ground swell from this blasting method.

C. Earth excavation: Removal and disposal of pavements and other obstructions visible on ground surface, underground structures and utilities indicated to be demolished and removed, and other materials encountered that are not classified as rock excavation or unauthorized excavation.

D. Rock excavation: Removal and disposal of materials that cannot be excavated without drilling and blasting, or requiring use of special equipment, except such materials that are classified as earth excavation.

Typical materials classified as rock are solid rock, rock in ledges, and rockhard cementitious aggregate deposits two cubic yards or more in volume.

Intermittent drilling or ripping performed to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.

Rock excavation does not include:

Removal of material which can be removed with a hand pick or power shovel.
Loose or previously blasted rock or broken stone in rock fills or elsewhere.

E. Rock payment lines:

Pipe trenches: as shown on Drawings or as required for installation of manholes, pipe and bedding material.

G. Excavation in Paved Areas: Cut pavement prior to excavation to provide a clean, uniform edge. Minimize disturbance of remaining pavement. Cut and remove the minimum amount of pavement required to do the Work.

Use shoring and bracing where sides of excavation will not stand without undermining pavement.

H. Excavation for Trenches: Excavate to widths shown on the Drawings.

Produce an evenly graded flat trench bottom at the subgrade elevation required for installation of pipe and bedding material.

Load excavated material directly into trucks unless otherwise permitted by the ENGINEER.

Place backfill material directly into trench or excavation. Do not stockpile material to be used as backfill in roadways or along edges of trenches.

I. Unauthorized excavation: Removal of materials beyond indicated subgrade elevations or dimensions without specific direction of ENGINEER. Unauthorized excavation, as well as remedial Work directed by ENGINEER including refilling, is at CONTRACTOR's expense.

J. Refilling Unauthorized Excavation:

Trenches: Use crushed stone or gravel as directed by ENGINEER.

Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by ENGINEER.

K. Excavation of Unsuitable Materials: When excavation has reached required subgrade elevations, notify ENGINEER who will make an inspection of conditions. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper as directed by ENGINEER and replace excavated material with gravel or crushed stone.

Removal of unsuitable material and its replacement as directed will be paid for at CONTRACT PRICE as described in Section 01025.

L. Material Storage: Stockpile and maintain suitable surplus excavated materials for re-use as backfill anywhere within the PROJECT limits as directed by the ENGINEER. Place, grade and shape stockpiles for proper drainage.

Locate and retain soil materials away from edge of excavations.

3.02 BLASTING

A. General: Obtain approval of OWNER before blasting.

Perform blasting in accordance with the following:

1. "Manual of Accident Prevention in Construction" issued by Associated General Contractors of America, Inc.

2. "Construction Safety Rules and Regulations" as adopted by the State Board of Construction Safety, Augusta, Maine.

3. Section 107.12 of the "Standard Specifications", Maine Department of Transportation.

B. Submit an accurate record on an approved form, containing the following information of each blast to the ENGINEER on a daily basis.

1. General location of blast.

2. Depth and number of drillholes.

3. Type and quantity of explosive used.

4. Time of blast.

5. Seismographic record of each blast taken at nearest structure.

C. Preblast Survey will be done by CONTRACTOR: Provide preblast survey prior to any blasting or blasting related operations. Survey to be performed by an independent business entity with a minimum 5 years experience in similar type surveys.

1. Preblast Survey to include but not be limited to:

a. Still photos taken at 15 meter maximum stationing. (101 mm x 150 mm glossy color prints).

b. Video tape of entire construction area.

c. Video tape of each structure within construction area to show both interior and exterior preblast conditions. Highlight existing defects in structures and pavements. Provide some means of establishing scale of existing defects. i.e.: include tape measure or folding ruler at defect during video taping.

d. Video taping must be done with commercial grade equipment to allow equipment still viewing without distortion of the viewed area.

e. Still photos and video tapes shall be retained by the preblast surveyor and shall be available for viewing by the OWNER and ENGINEER within 24 hours upon request.

3.03 STABILITY OF EXCAVATIONS

A. General: Slope sides of excavations to comply with OSHA Regulations and Local Codes. Shore and brace where sloping is not possible due to space restrictions or stability of material excavated.

Maintain sides and slopes of excavations in safe condition until completion of backfilling.

3.04 DEWATERING:

General: Perform all Work in the dry. Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding PROJECT site and surrounding area.

Do not allow water to accumulate in excavations. Provide and maintain pumps, dewatering system components necessary to convey water away from excavations.

Convey water removed from excavations and rain water to collecting or run-off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.

3.05 BACKFILL AND FILL:

A. General: Place acceptable soil material in layers to required elevations as shown on the Drawings and as listed below.

Fill, backfill, and compact to produce minimum subsequent settlement of the material and provide adequate support for the surface treatment or structure to be placed on the material. Place material in approximately horizontal layers of beginning at lowest area to be filled. Do not impair drainage.

B. Ground Surface Preparation: Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Scarify surfaces so that fill material will bond with existing surface.

When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

C. Placement: Place backfill and fill materials in layers not more than 300 mm in loose depth for material compacted by heavy compaction equipment, and not more than 150 mm in loose depth for material compacted by hand-operated tampers. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

Place backfill and fill materials evenly adjacent to structures, to required elevations. Take care to prevent wedging action of backfill against structures by carrying material uniformly around structure to approximately same elevation in each lift.

Do not allow heavy machinery within 1.5 meters of structure during backfilling and compacting.

D. Backfill excavations as promptly as Work permits, but not until completion of the following:

Acceptance of construction below finish grade including, dampproofing, waterproofing, and perimeter insulation.

Inspection and recording locations of underground utilities.

Removal of concrete formwork.

Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.

Removal of trash and debris.

Permanent or temporary horizontal bracing is in place on horizontally supported walls.

Backfill cast-in-place concrete structures when the concrete has developed adequate strength.

Use care in backfilling to avoid damage or displacement of underground structures and pipe.

Backfill under all existing utility pipes crossed by sewer construction with 19 mm crushed stone. The crushed stone back- fill will extend continuously from the bedding of the new sewer to the utility pipe crossed, including a 6" thick envelope of crushed stone all around the existing utility pipes.

The 19 mm crushed stone backfill shall stand at its own angle of repose. No "haunching" or "forming" with common fill will be allowed.

E. Backfilling Trenches: See Trench Detail on the Drawings.

Bed pipe in crushed stone. Limits of bedding and requirements for remaining trench backfill described in Section 02665.

Trenches in cross-country runs: Restore surface to that existing prior to construction. Mound trench 150 mm above existing grade if required by the ENGINEER.

F. Replacement of unsuitable materials:

Below normal grade: see paragraph 3.01K.

Above normal grade: replace unsuitable material with suitable stored onsite material. All excess suitable on-site material must be used before additional off-site material is used. If additional material is required use Select Backfill.

3.06 COMPACTION:

A. Methods: Use methods which produce the required degree of compaction throughout the entire depth of material placed without damage to new or existing facilities and which are approved by the ENGINEER. Adjust moisture content of soil as required. Remove and replace material which is too wet to compact to required density. Compact each horizontal layer of till and slopes as Work progresses.

B. Degree of Compaction: Compact to the following minimum densities:

FILL AND BACKFILL LOCATION	DENSITY
Under structure foundations	95% of max.
61 cm under pavement and above	95%
61 cm under pavement and below	92%
Trenches through unpaved areas	90%
Embankments (including slopes)	90%
Pipe Bedding	92%
Beside structure foundation walls, and retaining walls tank walls,	90%
Under pipes through structural fills	90%

Maximum density: ASTM D1557, modified.
Field density tests: ASTM D1556 (sand cone) or ASTM D2167 (rubber balloon), or ASTM D2922 (nuclear methods).

C. Testing:

Determine actual in place densities using field tests as directed by the ENGINEER. Tests will be made by an independent laboratory. Costs for initial tests will be paid by OWNER, under allowance as established under Bid Item 832.07. Failing tests and subsequent retests will be paid by CONTRACTOR.

Perform additional Work to obtain proper compaction if in-place densities do not meet the specified densities. Retesting may be required by the ENGINEER.

D. Minimum Number of Tests:

Paved Areas and Building Subgrade: Make at least one field density test of subgrade for every 185 square meters of paved area or building slab, but in no case less than 3 tests.

Other Areas: In each compacted fill layer, make one field density test for every 185 square meters of overlaying building slab or paved area, but in no case less than 3 tests.

3.07 GRADING:

A. Grading Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.

B. Grading Outside Structure Lines: Grade areas adjacent to structure lines to drain away from structures and to prevent ponding.

C. Finish surfaces free from irregular surface changes, and as follows:

Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 30 mm above or below required subgrade elevations.

Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 13 mm above or below required subgrade elevation.

Fill Under Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 300 mm when tested with a 3 meter straightedge.

D. Compaction: After grading, compact subgrade surfaces to the percentage of maximum density for each area classification.

3.08 MAINTENANCE:

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

3.09 DISPOSAL OF EXCESS MATERIALS:

A. Removal from Site:

Remove excess excavated material, and dispose of it in approved spoils areas.

Grade material to the satisfaction of the OWNER of the property on which the material is deposited. Keep roads free of debris. Use suitable watertight vehicles for hauling wet materials over roads and streets. Clean up materials dropped from or spread by vehicles promptly or when directed by the ENGINEER.

*** END OF SECTION ***

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.1 DESCRIPTION

A. Perform the following items of work, as shown and specified herein:

1. Strip all topsoil from within the construction limit lines and stockpile in separate piles on site in areas approved by the Engineer. Do not remove any topsoil or stripped gravel from the site.
2. Protect all trees, shrubs and plantings not designated to be removed, for the duration of the Contract.
3. Protect all existing utility lines and utility structures for the duration of the work.
4. Do all excavating and furnish all material necessary for filling, bedding, and backfilling as required to complete the work of this Contract, including the furnishing and compaction of additional material as needed.
5. Completely remove from the site all excavated material, which is not approved by the Engineer for use as fill or backfill and place in an approved disposal site.
6. Establish subgrades.
7. Perform all dewatering necessary to maintain excavated areas free from water from any source.
8. Perform cutting and removal of existing pavements to the extent indicated and as required for the installation of new work of this Contract.

1.2 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:

1. All work shall be performed and completed in accordance with all local, state or federal regulations and with relevant sections of the MDOTSSHB.
2. The General Contractor shall secure all necessary permits from, and furnish proof of acceptance by, the local and state departments having jurisdiction and shall pay for all such permits, except as specifically stated elsewhere in the Contract Documents. Also refer to Division 1.

B. Benchmarks and Surveying:

1. The General Contractor shall provide, within the contract price, the following work:

   a. Verify all locations, lines, grades, property lines, work lines, and other dimensioned points as required to complete the work.

C. Grade and Elevations:

1. The Drawings indicate, in general, the alignment and invert grades of sewers. The Engineer, however, may require the General Contractor to make adjustments in grades and alignment as found necessary during the performance of the work. Grading between indicated final grades shall be smooth even surfaces, except as otherwise required. Cover over pipes shall, in any case, conform to requirements of agencies having jurisdiction.
2. The Contractor shall establish the lines and grades in conformity with the Drawings and maintain same by means of suitable stakes or battens, placed as directed, specified, or required by the Engineer to properly perform the contract installation.

D. Compaction:

1. The Contractor shall compact all embankment materials in accordance with these specifications and to the satisfaction of the Engineer and/or Resident Project Representative.
2. Work shall be halted when the Engineer and/or Resident Project Representative is not satisfied with the results of the Contractor's compaction operations. A testing laboratory acceptable to the Engineer shall then be obtained to determine if the Contractor is conforming to these specifications relative to compaction.

   a. If the test results fail to meet the requirements of these specifications, the Contractor shall correct the situation and obtain a passing test. The cost of the testing service shall be borne by the Contractor and no allowance will be made for delays in the performance of the work.

3. When a testing laboratory is obtained, two copies of the following reports shall be submitted to the Engineer and one copy for the Contractor.

   a. Test reports on material.
   b. Field density test reports.
   c. One moisture density curve for each type of soil encountered.
   d. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested.

1.3 JOB CONDITIONS

A. Disposition of Utilities:

1. The locations of utilities shown on the plan are approximate as determined from physical evidence on or above the surface of the ground and from information supplied by the utilities. The Engineer in no way warranties that these locations are correct. It shall be the responsibility of the Contractor to determine the actual locations of any utilities within the project area.
2. Rules and regulations governing the respective utilities shall be observed in executing all work in this Section. Active utilities shall be adequately protected from damage, and removed or relocated only as indicated or specified. Inactive and abandoned utilities encountered in excavation and grading operations shall be removed, plugged or capped. Report in writing to the Engineer the locations of such abandoned utilities. Extreme care shall be taken when performing work in the vicinity of existing utility lines, utilizing hand excavation in such areas, as far as practicable. If, in the progress of excavation, any utility should become damaged and result in any damage to public or private property, the General Contractor shall restore to the original condition, at no additional cost to the Owner, anything which has been damaged or disturbed.
3. Follow all regulations and requirements of the governing utility authority (i.e., water district, electric company, municipal public works, state agency, etc.) whenever utilities are encountered during the work on this project.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Subbase and Base Material: Naturally or artificially graded mixture of natural gravel conforming to the typical cross-section, as shown on the Drawings.

B. Backfill Materials: Satisfactory soil materials free of clay, rock or gravel larger than 2" in any dimension, debris, waste, frozen materials, vegetable and other deleterious matter specified in Section 02228.

C. Use of Excavated Material:

1. To the extent they are needed, all suitable materials from the specified excavation may be used in the construction of required backfill, embankments, drains, and slope protective devices (rip-rap).
2. Surplus excavated materials suitable for backfill or filling operations shall not be wasted, but stockpiled for future use as directed by the Engineer.
3. Unsuitable material shall consist of grubbings or other materials which contain rock of size exceeding specifications, organic materials, or other materials of a deleterious nature as deemed by the Engineer.

D. Pipe Bedding: Refer to Section 02228.

E. Rock fill shall consist of rock for use in embankments and shall be of that rock which consists of hard durable broken to various sizes that will form a compact embankment with a minimum of voids. It shall contain no particles or fragments with a maximum dimension in excess of the compacted thickness of the layer being placed.

PART 3 - EXECUTION

3.1 TREE PROTECTION

A. Protect all existing trees, shrubs and planting. Tree trunks shall be protected by substantial boxing to prevent damage.

3.2 CUTTING AND REMOVAL OF EXISTING PAVEMENT

A. Refer to the Drawings for extent of cutting and removal required of existing pavements.

B. Perform all cutting in a straight and neat manner, using mechanical equipment such as concrete saws for such purpose. Completely remove all cut surfacing materials from the site.

C. In addition to areas specifically designated on the Drawings, perform cutting wherever existing surfacing will be disturbed by the work of this Contract.

D. Existing pavement damaged beyond the limits as shown shall be removed as specified herein and replaced at the Contractor's expense.

3.3 STRIPPING AND STOCKPILING TOPSOIL AND GRAVEL SURFACE

A. Before any underlaying excavation is begun, strip all topsoil, gravel surfacing and unsuitable materials. Within the construction lines, below paved areas and below any other structural elements, remove the strata of topsoil and unsuitable materials for their entire depths. In other areas, remove topsoil and unsuitable materials to the specified subgrade.

B. Clean all topsoil free from large stones, roots, debris and large clumps of clay before stockpiling on site.

3.4 SHORING AND SHEETING

A. Provide shoring, sheeting and bracing at excavations as required to prevent cave-ins of excavation, and to assure complete safety of existing structures, utilities and pavements that are to remain in place.

B. Comply with applicable local, state or federal safety regulations or in the absence thereof, with the provisions of the Manual of Accident Prevention in Construction of the Associated General Contractors of America, Inc.

C. Remove sheeting, shoring and bracing as backfilling operations progress, taking all necessary precautions to prevent failure of excavation sides. Where sheeting is to be left in place, obtain written authorization to do so from the Engineer.

3.5 EXCAVATION

A. Excavation consists of removal and disposal of or reusing of material encountered when establishing required grade elevations:

1. Rock Excavation: See MDOTSSHB
2. Unauthorized Excavation:
    a. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at the Contractor's expense.
    b. Backfill and compact unauthorized excavations as specified for authorized excavations of the same classification, unless otherwise directed by the Engineer.
3. Additional Excavation:
    a. When excavation has reached subgrade elevations notify the Engineer, who will make an inspection of conditions.
    b. If unsuitable bearing materials are encountered at the required subgrade elevations, carry excavations deeper and replace the excavated material as directed by the Engineer.
    c. Removal of unsuitable material and its replacement as directed will be paid under appropriate bid items.
4. Trench Excavation:
    a. Trench excavation is specified in Sections 02223
5. Backfilling shall consist of replacing material removed to permit installation of structures or utilities.
6. Grading shall consist of that work necessary to bring areas to grade.

3.6 COLD WEATHER PROTECTION

A. Protect excavation bottoms against freezing when atmospheric temperature is less than 2°C.

3.7 COMPACTION

A. General: Control soil compaction during construction to the satisfaction of the Engineer by providing compaction and density testing (determined in accordance with ASTM D2922(Nuclear Method)) to at least the minimum percentage of maximum density as specified for each area classification. Testing will be required at a minimum, unless otherwise directed by the engineer, of the following:

1. Under slabs, Backfill, Unpaved Areas: One test per each 300 mm lift for every 186 m^2 or one test per lift , whichever is greater.
2. Walkways, Pavements: One test per each 300 mm lift for every 186 m^2 or 61 linear meters, whichever is greater.

B. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum dry density for soils which exhibit a well-defined moisture density relationship (determined in accordance with ASTM D1557) and to not less than the following percentages of relative dry density (determined in accordance with ASTM D2049) for soils which do not exhibit a well-defined moisture density relationship.

1. Lawn or Unpaved Areas: Compact top 150 mm of subgrade and each layer of backfill or fill material to 90 percent maximum dry density.
2. Walkways: Compact top 150 mm of subgrade and each layer of backfill or fill material to 95 percent maximum dry density or 90 percent relative dry density.
3. Pavements, Utilities under traveled ways, slabs on grade and Structural Fill areas: Compact top 300 mm of subgrade and each layer of backfill or fill material to 95 percent maximum dry density or 90 percent relative dry density.

C. Moisture Control: Where subgrade or a layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.

D. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

E. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory level.

3.8 BACKFILL AND FILL

A. General: Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below.

1. In excavations, use satisfactory excavated or borrow material.
2. Under grassed areas, use satisfactory excavated or borrow material.
3. Under pavements, use subbase material, or satisfactory excavated or borrow material, or combination of both.

B. Backfill excavations as promptly as work permits, but not until completion of the following:

1. Inspection, testing, approval and recording locations of underground utilities.
2. Removal of trash and debris.

C. Placement and Compaction: Place backfill and fill materials in layers not more than 8" in loose depth for material compacted by heavy compaction equipment, and not more than 4" in loose depth for material compacted by hand-operated tampers.

D. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content. Compact each layer to required percentage of maximum dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice. Some of the native till may be sufficiently above its optimum moisture content to require some drying prior to final compaction. This drying can likely be accomplished as part of the placement during relatively dry weather conditions. Some of the excavation may be below the groundwater table and will be placed somewhat above its optimum water content. The rapid placement of dense relatively impervious soils can produce high pore pressures. The development and

dissipation of pore water pressures are time related functions. Care needs to be exercised in fill placed above piping as high pore pressure can cause liquefying of the soils surrounding a pipe allowing the pipe to rise through the liquified zone of the backfill.

E. Place backfill and fill materials evenly adjacent to structures, to required elevations. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around structures to approximately same elevation in each lift.

3.9 GRADING

A. General: Uniformly grade areas within limits of construction. Smooth finished surface within specified tolerances.

B. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 30 mm above or below the required subgrade elevations.

C. Pavements: Shape surface of areas under pavement to line, grade and cross-section, within finish surface not more than 13 mm above or below the required subgrade elevation.

3.10 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction: Shall be at the discretion of the Engineer.

3.11 MAINTENANCE

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

B. Repair and re-establish grades to specified tolerances in settled, eroded and rutted areas to specified tolerances.

C. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape and compact to required density prior to further construction.

3.12 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Removal from Owner's Property: Remove waste materials, including unacceptable excavated material, trash and debris, and dispose of it off the Owner's property or in an approved waste area.

B. Excess acceptable/useable excavated material shall be stockpiled on-site at locations directed by the Engineer. The Contractor shall not have any right of property in any suitable material taken from any excavation. Do not remove any such materials from the construction site without the approval of the Engineer. This provision shall in no way relieve the Contractor of his obligations to remove and dispose of any material determined by the Engineer to be suitable for backfilling.

3.13 Excavations around other utilities, pipes, stone drains, culverts and similar installations shall be done with extreme care. It shall be the Contractor's responsibility to contact the owner/operator of each utility to be encountered and obtain information relative to location and depth before excavating in the area. The Contractor shall promptly notify the utility owner concerned in the event of damage occurring during construction, whether caused by him or by others.

Where existing stone drains are to be crossed, care shall be taken to install the sewer line in the area of the stone drain with a minimum amount of disturbance to the stone drain. If sections of the stone drain must be removed, the Contractor shall replace them in their original condition, exercising extreme care in compacting the backfill under, around and over the stone drain.

3.14 Private utilities (building drains, etc.) encountered in the work shall be brought to the attention of the Engineer and be handled in such a manner as he directs.

3.15 Additional excavation shall mean earth excavation necessary to overcome unstable trench conditions, test pits for location of sewers and other utilities and for other authorized excavation as directed by the Engineer.

END OF SECTION

SECTION 02223

TRENCH EXCAVATION - EARTH

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Trench excavation work in earth includes the removal of sand, gravel, existing sewers and manholes, ashes, loam, clay, swamp muck, soft or disintegrated rock or hard pan which can be removed with a backhoe, or a combination of such materials, and boulders measuring less than two cubic yards for the installation of pipes and appurtenant structures.
2. All trench excavation shall be classed as earth or ledge.

B. Related Work Specified Elsewhere (Where Applicable):

1. Traffic regulation is specified in MDOTSSHB
2. Clearing, removal and replacement of paving, trench excavation, ledge material, manholes and catch basins, when applicable, are specified in the appropriate Sections in this Division.
3. Pipe and pipe fittings are specified in Division 2 .

1.2 JOB CONDITIONS

A. Utilities:

1. The locations of known buried water lines, sewer lines, telephone cables, storm drains, culverts, gas mains, electric conduits and other utilities are shown on the Drawings. No guarantee is made as to the correctness of the locations shown and to the completeness of the information given. Refer also to Division 1 for utility information.
2. Discontinue excavation by machinery when the excavation approaches pipes, conduits or other underground structures of which the approximate locations are not known. Use manual excavation methods to locate the obstructions.

B. Existing Structures:

1. Perform excavation in such a manner that will prevent any possibility of undermining and disturbing the foundations of any existing structures and any work previously completed under this Contract.
2. Where existing buildings and other structures are in close proximity to the proposed construction, exercise extreme caution and utilize sheeting, bracing and whatever other precautionary measures that may be required.

C. Repairing Damage: Restore, or have restored to existing condition, all damage to existing utilities, structures, lawns, other public and private property which results from construction operations, at no additional expense to the Owner, to the complete satisfaction of the Engineer, the utility company, the property owners and the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. The Contractor shall not have any right of property in any suitable material taken from any excavation. Do not remove any such materials from the construction site without the approval of the Engineer. This provision shall in no way relieve the Contractor of his obligations to remove and dispose of any material determined by the Engineer to be unsuitable for backfilling.

B. Unsuitable Material:

1. If, in the opinion of the Engineer, the material encountered above the indicated grade, shown on the Drawings, for excavation is unsuitable material, remove the material to the widths and depths as directed by the Engineer. Replace this material as specified in the "Earthwork" section of this Division.
2. If, in the opinion of the Engineer, the material encountered at or below the indicated grade shown on the Drawings for excavation is unstable material, remove the material to the full width of the trench and to the minimum depth of 300 mm below the pipe. Replace this material with thoroughly compacted suitably screened gravel or crushed stone bedding material.
3. All excavated materials designated by the Engineer as unsuitable shall become the property of the Contractor and disposed of at locations acceptable to or designated by the Owner, at no additional cost to the Owner.

C. Embankment Material: Obtain prior approval and instructions from the Engineer prior to undertaking the excavation for pipe placement of any fill material that has been in an embankment less than one year.

PART 3 - EXECUTION

3.1 PERFORMANCE

A. General:

1. Unless otherwise specifically directed or permitted by the Engineer, begin excavation at the low end of sewer lines and proceed upgrade.
2. Perform excavation for water mains in a logical sequence.

B. Amount of Excavation:

1. Trench width: As shown.
2. Trench depth: As shown.
3. Open Excavation:
   a. The extent of open excavation shall be controlled by prevailing conditions.
   b. Open excavation shall, at all times, be confined to the limits prescribed by the Engineer.

4. Unauthorized Excavation:
   a. Backfill, to the specified grade, any excavation beyond the limits stated above and as shown (unless specifically ordered by the Engineer) with thoroughly compacted crushed stone or screened gravel.
   b. Backfilling unauthorized excavations shall be at no additional cost to the Owner.

C. Shoring and Bracing:

1. As the excavation progresses, install such shoring and bracing necessary to prevent caving and sliding and to meet the requirements of the State and OSHA safety standards.

END OF SECTION

SECTION 02228

GRANULAR BORROW & PIPE BEDDING MATERIAL

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included: Provide, place, and compact borrow and bedding material in authorized areas as shown and/or as directed by the Engineer.

B. Related Work Specified Elsewhere: Trench excavation - backfilling, compaction, control, and testing are specified in the appropriate Sections in this Division.

1.2 SUBMITTALS

A. Submit samples, laboratory sieve analyses and proctors of all materials. Material shall be submitted by the Contractor for approval by the Engineer, or his representative.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Pipe Bedding: (Backfill in the Pipe Embedment Zone) shall be:

1. PVC Pipe and Plastic Culvert (CPT):

a. Crushed rock or gravel similar to MDOT Specification 703.06(a) type "A" Aggregate Base, conforming to following gradation:

Sieve Size	% Finer by Weight
37.5 mm	100
12.5 mm	45-70
6.3 mm	30-55
4.75 mm	5-20
75 μm	0-5

Crushed rock without fine-grained material to act as a filter against migration of fines from native trench soils will not be allowed.

2. Sewer Pipe (DI), Metal Culvert, Extruded HDPE Pipe, CMP and R.C. Storm Drain:

   a. Screened gravel, well graded in size from 9.5 mm to 19 mm, well-graded sand, or such other material as may be approved by the Engineer.
      1) Clean, hard, and durable fragments.
      2) Free from dirt, vegetation, or other objectionable matter, and free of any excess, or soft, thin elongated, laminated or deleterious particles.

   b. Crushed rock of suitable size and grading may be used in lieu of screened gravel.

3. Pressure Pipe (DI):

   a. Select material consisting of native soil excavated from the trench fee of stones, foreign and frozen materials.

B. Crushed Rock: Suitably graded from 6.5 mm to 19 mm in size or else otherwise approved by the Engineer.

C. Granular Structural Fill and Backfill:

1. Compacted granular structural fill and backfill under utility structures shall consist of crushed stone or gravel, free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material and shall be graded within the following limits:

Sieve Size	**% Finer by Weight**
25 mm	100
19 mm	90-100
6.3 mm	20-55
4.75 mm	0-10

2. Compacted granular structural fill and backfill under slabs on grade and within building areas yet below "select fill" shall consist of granular soil with good drainage characteristics, free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material and shall be graded within the following limits:

Sieve Size	% Finer by Weight
150 mm	100
425 µm	0 - 70
75 µm	0 - 20

3. Select compacted structural fill and backfill under slabs on grade and adjacent to foundations, columns or posts shall consist of gravel, sandy gravel, or gravelly sand, free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material and shall be graded within the following limits:

Sieve Size	% Finer by Weight
76 mm	100
6.3 mm	25 - 70
425 µm	0 - 30
75 µm	0 - 5

PART 3 - EXECUTION

3.1 INSTALLATION

A. Place screened gravel, crushed rock, crushed stone, granular backfill or sand in layers of uniform compacted thickness not greater than 150 mm.

B. Thoroughly compact each layer by means of a suitable vibrator or mechanical tamper.

C. In excavations below normal depth or where unsuitable materials are excavated, granular backfill may be used unless groundwater makes such usage impossible; if such is the case then bedding material or crushed stone shall be used.

3.2 SCHEDULES

A. Bedding Requirements/Earth or Ledge:

1. PVC Sewer, Extruded HDPE Pipe, CPT Culvert, Metal Culvert, and Storm Drain Pipe: As shown, compacted to 90% of maximum density as determined by ASTM – 1557. Storm drain pipe and culverts shall be backfilled in accordance with MDOT SSNB 603.08.

2. DI Sewer: Cast Iron Research Association (CIRRA) laying condition Type 4. Pipe bedded in sand, gravel or crushed rock to a depth (below invert) of 1/8 pipe diameter, 100 mm minimum, compacted backfill of select material

to tops of pipe. Compact to 80% of maximum density as determined by ASTM -D-1557.

3. DI Pressure Pipe (Except where sewers cross beneath): CIRRA laying condition Type 2. Select material from invert to center of pipe, compacted to 70% of maximum density as determined by ASTM-D-1557.
4. Reinforced Concrete (RC) Pipe: American Concrete Pipe Association Class B bedding. Bed in sand, gravel or crushed rock per Class B details. Compact select material to 300 mm above pipe top to 80% of maximum density as determined by ASTM-D-1557.

B. Under-slab fill and foundation backfill requirements

1. A minimum of 300 mm of compacted select structural fill shall be placed directly under all slabs on grade and around buried posts and columns.
2. A minimum of 450 mm of compacted select structural fill shall be placed adjacent to all foundations.

END OF SECTION

SECTION 300

AGGREGATE BASE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Aggregate base shall be screened or crushed gravel consisting of hard, durable particles which are free from vegetable matter, lumps or balls of clay, and other deleterious substances.

1.2 SUBMITTALS TO THE ENGINEER

A. Contractor shall certify that materials comply with the specification requirements by submitting either laboratory test results or certificates of compliance.

1.3 REFERENCE SPECIFICATIONS

A. MDOT Standard Specifications for Highways and Bridges (MDOTSSHB).

PART 2 - PRODUCTS

2.1 MATERIALS

A. The gradation of the portion of the aggregate base course, which will pass a 3" sieve, shall meet the grading requirements of MDOTSSHB, Subsection 703.06(a), Type "A" unless otherwise noted on the drawings.

B. Gradation tests shall conform to AASHTO T27, except that the material may be separated on the ½" sieve. The base shall not contain particles of rock, which will not pass the 2" square mesh sieve. The percentage passing the No. 200 mesh sieve shall be reported to the nearest 0.1 percent.

PART 3 - EXECUTION

3.1 PLACING

A. Placement of the base course shall conform to applicable requirements of MDOTSSHB, Subsection 411.03 & 304.03.

3.2 SHAPING, COMPACTING AND STABILIZING

A. Shaping, compacting and stabilizing shall be in accordance with MDOTSSHB Subsection 411.04 & 304.04 except that field density tests shall be the Contractor's responsibility.

3.3 SURFACE TOLERANCE

A. The completed surface of the aggregate base course shall be shaped and maintained to a tolerance, of 3/8" above or below the required cross sectional shape.

3.4 PAYMENT

A. The accepted quantity will be paid under the contract unit price of cubic meters as determined by the plans.

END OF SECTION

DWSRF Supplemental General Conditions for Projects Done In Conjunction with MDOT
2/6/04

1. **Disclaimer**

   The Water Utility portion of this contract is expected to be funded in part by a State Revolving Loan.

   The Department of Human Services is not party to any portion of this overall contract.

2. **Inspection**

   The Department of Human Services shall have access to the project site for inspection of the Water Utility work

3. **Access to Records**

   DHS, MMBB, and US Comptroller General, or any authorized representatives shall have the right to access records from the Department of Transportation pertinent to this project.

SECTION 801

SANITARY SEWER PIPE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Provide and install sewer pipe and fittings of the size(s) and type(s) and in the location(s) shown on the drawings and as specified herein.

B. Related Work Specified Elsewhere (When Applicable):

1. Excavation and backfill, dewatering, pavement, borrow and bedding material, and cleaning and testing requirements are specified in the appropriate sections of this Division.

1.2 QUALITY ASSURANCE

A. Manufacturers:

1. Certain-Teed (PVC).
2. Johns-Manville (PVC).
3. U.S. Pipe and Foundry Company (DI).
4. Griffin Pipe Company (DI).
5. Or equivalent.

1.3 SUBMITTALS TO THE ENGINEER

A. Submit Shop Drawings in accordance with the General Conditions of the Construction Contract.
B. Submit manufacturer's Certification of Conformance that pipe and fittings meet or exceed the requirements of these Specifications.
C. Submit other documents as specified in the appropriate sections of this Division.

1.4 DELIVERY, STORAGE AND HANDLING

A. Provide all labor necessary to assist the Engineer to inspect pipe, fittings, gaskets and other materials.
B. Carefully inspect all materials at the time of delivery and just prior to installation.
C. Carefully inspect all pipe and fittings for:

1. Defects and damage.
2. Deviations beyond allowable tolerances for joint dimensions.
3. Removal of debris and foreign matter.

D. Examine area and structures to receive piping for:

1. Defects, such as weak structural components that adversely affect the execution and quality of work.
2. Deviations beyond allowable tolerance for pipe clearances.

E. All materials and methods not meeting the requirements of the Contract Documents will be rejected.

F. Immediately remove all rejected materials from the project site.

PART 2 - PRODUCTS

2.1 PVC PIPE AND FITTINGS

A. The polyvinyl chloride pipe and fittings, including those required for stubs, shall conform to ASTM standard specification for PVC Sewer Pipe and Fittings, Designation D3034 (SDR 35) or F789 100 mm to 380 mm (4" to 15"), F679 460 mm to 660 mm (18" to 27").

B. Straight pipe shall be furnished in lengths of not more than 4 m (13').

C. Saddles will not be allowed.

D. Joints:

1. Joints for the polyvinyl chloride pipe shall be push-on joints using factory installed elastomeric ring gaskets.
2. The gaskets shall be securely fixed into place by the manufacturer so that they cannot be dislodged during joint assembly.
3. The gaskets shall be of a composition and texture which is resistant to common ingredients of sewage and industrial wastes, including oils and groundwater, and which will endure permanently under the conditions of the proposed use.
4. The joints shall conform to ASTM Specifications for Joints for Drain and Sewer Plastic Pipes using Flexible Elastomeric Seals, Designation D3212-76.

2.2 DI PIPE

A. DI pipe shall be a minimum of Class 52 conforming to the requirements of ANSI A21.5 and ANSI A-21.11 push on joints. Where required because of depth or bedding conditions, DI pipe shall be increased to that recommended in ANSI/AWWA C151. Pipe shall be cement lined and double asphalt seal coated inside and bituminous coated outside.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Inspection:

1. Each pipe unit shall be inspected before being installed. No single piece of pipe shall be laid unless it is generally straight.
2. The centerline of the pipe shall not deviate from a straight line drawn between the centers of the openings at the ends of the pipe by more than 5 mm per meter of length (1/16" per foot of length).
3. If a piece of pipe fails to meet this requirement for straightness it shall be rejected and removed from the site.
4. Any pipe unit or fittings discovered to be defective either before or after installation shall be removed and replaced with a sound unit.

B. Jointing:

1. All pipe and fittings shall be cleared of all debris, dirt, etc., before being installed and shall be kept clean until accepted in the completed work.
2. Pipe and fittings shall be installed to the lines and grades indicated on the Drawings as required by the Engineer. Care shall be taken to ensure true alignments and gradients.
3. All joint surfaces shall be cleaned. Immediately before jointing the pipe, the bell or groove shall be lubricated in accordance with the manufacturer's recommendations.
4. Each pipe unit shall then be carefully pushed into place without damage to the pipe or gasket. Suitable devices shall be used to force the pipe units together so that they will fit with a minimum open recess inside and outside and have tightly sealed joints. Care shall be taken not to use such force as to wedge apart and split the bell or grove ends.
5. Joints shall not be pulled or cramped unless permitted by the Engineer.

C. Fabrication:

1. Cut the pipe with a hand saw, metal-inserted abrasive wheel, or pipe cutter with blades (not rollers).
2. Examine all cut ends for possible cracks caused by cutting.

D. Installation in Trenches:

1. Firmly support the pipe and fittings on bedding material as shown on the Drawings and as specified in the appropriate sections of these Specifications.
2. Do not permanently support the pipe or fittings on saddles, blocking stones, or any material which does not provide firm and uniform bearing along the outside length of the pipe.
3. Thoroughly compact the material under the pipe to obtain a substantial unyielding bed shaped to fully support the pipe.
4. Excavate suitable holes for the joints so that only the barrel of the pipe receives bearing pressure from the supporting material after placement.

5. Lay each pipe length so it forms a close joint with the adjoining length and bring the inverts to the required grade.
6. Set the pipe true to line and grade. Use a laser beam aligner for grade and alignment. Lay pipe without break up-grade from structure to structure with the bell end of the pipe upstream.
7. Do not drive the pipe down to grade by striking it with a shovel handle, timber, rammer, or any other unyielding object.
8. Make all pipe joints as watertight as possible with no visible leakage and no sand, silt, clay, or soil of any description entering the pipeline at the joints.
9. Immediately after making a joint, fill the holes for the joints with bedding material, and compact.
10. When each pipe length has been properly set, place and compact enough of the bedding material between the pipe and the sides of the trench to hold the pipe in correct alignment.
11. After filling the sides of the trench, place and lightly tamp bedding material to complete the bedding as shown on the Drawings.
12. Take all necessary precautions to prevent floatation of the pipe in the trench.
13. Where there is evidence of water or soil entering the pipeline, repair the defects to the satisfaction of the Engineer.

E. Temporary Plugs:

1. When pipe installation work in trenches is not in progress, close the open ends of the pipe with temporary watertight plugs.
2. If water is in the trench when work is resumed, do not remove plugs until all danger of water entering the pipe is eliminated.
3. Do not use the pipelines as conductors for trench drainage during construction.

F. Trench Dams:

A. Trench dams to hinder the flow of groundwater through the bedding material shall be constructed along the trench. Trench dams shall be either Type 1 or Type 2. Type 1 trench dams shall be constructed of material excavated from the trench, Type 2 trench dams shall be constructed of relatively impervious clayey or silty material obtained from borrow sources. Type 1 trench dams shall extend 300 mm (1') above the pipe embedment zone and have a 600 mm (2') minimum top width. Type 1 trench dams shall be spaced within 7.6 m (25') up station of each manhole, and in granular soils whenever the trench grade rises 1.5 m (5'), or in fine grained and mixed soils whenever the trench grade rises 3 m (10'). Type 2 trench dams shall have a minimum width of 1.5 m (5'), extend from trench invert to the finish grade of the subbase and be constructed within 15.2 m (50') up station of all rail crossings, or other locations as shown.

3.2 WATERMAIN RELOCATION OR REPAIR

A. When it is necessary to relocate a watermain to eliminate a direct on-grade conflict with work, the following conditions of separation, as taken from the Ten State Recommended Standards for Sewage Works, 1978 edition, shall apply.

B. Horizontal Separation:

1. Sewers shall be laid at least 3.05 m (10') horizontally from any existing or proposed watermain. The distance shall be measured edge to edge. In cases where it is not practicable to maintain a 3.05 m (10') separation, the appropriate reviewing agency may allow deviation on a case-by-case basis, if supported by data from the design Engineer. Such deviation may allow installation of the sewer closer to a watermain, provided that the watermain is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the water main is at least 450 mm (18") above the top of the sewer.

C. Crossings

1. Sewers crossing watermains shall be laid to provide a minimum vertical distance of 450 mm (18") between the outside of the watermain and the outside of the sewer. This shall be the case where the watermain is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the watermain joints. Where a watermain crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the watermain.

D. Special Conditions

1. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to the water pipe, and shall be pressure tested to assure watertightness prior to backfilling.
2. If a water and sewer pipe crosses one another with less than an 450 mm (18") clearance, both pipes shall be encased in concrete in accordance with the requirements of the New Standard TR-16.
3. It is recognized by the Owner and Contractor that the existence and location of all watermain crossings at or adjacent to the work cannot be predetermined prior to undertaking the work. Therefore it is anticipated that from time-to-time watermains whose existence was unknown or location incorrectly marked by the water utility may be broken. When this occurs, the watermain shall be repaired as described below.
4. Relocated or repaired watermains shall be constructed of ductile iron pipe conforming to the requirements of ANSI A21.51 and the local water utility except as noted below. Pipe shall have push on joints employing a single gasket to effect the joint seal designed for 1.7 MPa (250 psi) working pressure and Type 4 laying conditions with 1.8 m (6') of earth cover.
5. All pipe shall be double cement-lined and have a double asphalt seal coat of a type that does not impart taste or odor to the water. The outside of all pipe shall be bituminous coated.
6. Fittings shall be cast iron or ductile iron, at least 1.7 MPa (250 psi) working pressure, cement-lined seal coated inside and tar coated outside as described above; with mechanical joints complete with all joint accessories, including ductile iron retainer glands, and conform to ANSI A21.10 and A21.11.
7. Mechanical joint split repair sleeves with gaskets suitable for sealing either pit cast or centrifugally cast pipe shall be used to connect the relocated or repaired watermain to the undisturbed main.

8. Cutting Pipe: All cutting of iron pipe shall be done using a mechanically powered cutting device. Blades shall be carbide tipped for cutting cement-lined iron pipe. The machine used shall be a portable saw equal to those made by Fein, Wachs, or Homelite. When the cut end is to be used for a push on joint, it shall be tapered back on the outside of the cut about 3 mm (1/8"), at an angle of about 30° with the pipe centerline. This shall be done with a coarse file or portable grinder.
9. Where it is necessary to relocate fire hydrants the Owner will supply the hydrant and the Contractor shall supply all pipe and fittings for the hydrant arm.
10. Connections to Existing Mains: The Contractor shall make all necessary taps, whether dry or wet, into the various water pipes and shall install the sleeves, tees, couplings, reducers, nipples, jointing materials and the items necessary to make all joints watertight and provide complete and effective connections to existing watermains.
11. No valves on existing mains shall be operated by the Contractor without permission of the Owner of the existing main.
12. Classification of materials excavated, trenching methods, blasting and backfilling shall be subject to the applicable requirements for sewer construction. Prior to lowering a pipe section into the trench a coupling hole shall be dug in the trench bottom having a length, width and depth to allow assembly and to maintain a minimum clearance of 50 mm (2") between the coupling and undisturbed trench bottom.

3.3 CONNECTION OF EXISTING DRAINS

A. Existing drains to be intercepted shall be disconnected and the upstream section connected to the interceptor at those locations shown on the Drawings or indicated by the Engineer. The upstream end of the disconnected section shall be plugged with mortar in a manner approved by the Engineer.

3.4 POLE RESTRAINT

A. Completion of the work may require temporary restraint of power poles. The Contractor shall obtain all necessary permits, pay all fees and fully coordinate his activities as required by the local power utility.

3.5 CLEANING AND TESTING

A. Cleaning and Testing Piping – General:

1. Thoroughly clean all piping prior to testing. Remove all dirt, dust, oil, grease and other foreign material.

B. Testing:

1. Clean and test pipe in accordance with appropriate Sections of this Division.

3.6 MEASUREMENT AND PAYMENT, Items 801.17 & 801.18

A. The quantity of Sewer Construction to be measure for payment will be the number of linear meters horizontally along the centerline of the pipe between structures, of each diameter and type acceptably installed and tested. Sewer Construction will be paid for at the Contract price per linear meter for each diameter and type installed and tested. No separate payment will be made for excavation, trench shaping, dewatering, bedding, pipe connections, backfilling, and disposal of excess or unsuitable material, the cost of which shall be considered included in the Contract unit price for sewer construction.

END OF SECTION

SECTION 803

MANHOLES, VAULTS, COVERS AND FRAMES

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included: Construct vaults, manholes, drop manhole 1.5 m ID, covers, frames, brick masonry, inverts, manhole boots, coring, and apply waterproofing in conformance with the dimensions, elevations, and locations shown on the Drawings and as specified herein.

B. Related Work Specified Elsewhere (When Applicable):

1. Pipe, excavation, backfill, paving, dewatering and final sewer testing are specified in the appropriate Sections in this Division.

1.2 QUALITY ASSURANCE

A. Precast Manhole Risers and Tops:

1. Conform to ASTM C478-72 except as modified herein, on the Drawings or as directed by the Engineer.
2. Average strength of 27,600 kPa as 28 days.
3. Acceptable Manufacturers:
   a. Superior Concrete Company, Inc., Auburn, Maine
   b. American Concrete Industries, Veazie, Maine
   c. Maine Cement Products, Portland, Maine
   d. Or approved equal.

4. Testing:
   a. Determine concrete strength by tests on 150 mm x 300 mm vibrated test cylinders cured in the same manner at the risers and tops.
   b. Have test conducted at the manufacturer's plant or at a testing laboratory approved by the Engineer.
   c. Have not less than two tests made for each 30.5 vertical meters of risers and tops.

B. Manhole Steps:

1. Acceptable manufacturers:
   a. BOWCO Step and Socket System
   b. Or approved equal.

C. Frames and Covers:

1. Acceptable manufacturers:
    a. Portland Foundry Company
    b. Neenah Foundry Company
    c. Or approved equal.

D. All manhole components shall be of design, construction, and workmanship approved by the Engineer.

1.3 SUBMITTALS TO THE ENGINEER

A. Submit shop drawings and manufacturer's literature in conformance with Standard General Conditions of the Construction Contract.

B. Riser and Tops: Submit test results and receive approval from the Engineer prior to delivery to the site.

1.4 QUALITY ASSURANCE

A. Standards:

1. MDOT Standards Section 604 Manholes and Catch Basins.

1.5 SCHEDULE

A. Prior to ordering manholes the Contractor shall obtain field level information to establish rim elevations for each manhole. As part of the shop drawing submittal, submit a manhole component schedule, indicating as a minimum, for all manholes, the following information:

1. Proposed finished rim elevation.
2. Riser ring thickness.
3. Individual height and size of all precast sections.
4. Positioning (horizontal and vertical) of all pipe penetrations into the manhole.
5. Invert elevations of all pipes into the manhole.

B. All manhole components delivered to the job shall be clearly marked to show the manhole number and installation sequence in conformance with the approved shop drawing schedule.

PART 2 - PRODUCTS

2.1 RISERS AND TOPS

A. Dimensions, unless otherwise shown on the Drawings, or as directed by the Engineer.

1. Risers:
    a. Diameter: 1.2 m I.D., 1.5 m diameter ID for drop manhole.

b. Length: Shall be 1.2 m - no substitution allowed.
c. Wall Thickness: Not less than 130 mm.
d. Joints: Bell-and-spigot or tongue-and-groove formed on machine rings to ensure accurate joint surfaces.

2. Tops:
   a. Diameter: Concentric cone type, 610 mm I.D. at top, 1.2 m I.D. at bottom unless otherwise shown on the Drawings.
   b. Length: Shall be 1.2 m - no substitutions allowed.
   c. Wall thickness: Not less than 130 mm at the base, tapering to not less than 200 mm at the top.
   d. Joints: Bell-and-spigot or tongue-and-groove formed on machine rings to ensure accurate joint surfaces.
3. Flat Slab Tops:
   a. Location: Where shallow installations will not permit the use of a cone-type top, or where shown on the Drawings.
   b. Slab Thickness: Not less than 150 mm.
   c. Construction to support HS-20 wheel loading.

B. Openings:

1. Provide openings in the risers to receive pipes entering the manhole.
2. Make openings at the manufacturing plant or core opening in the field.
3. Size: To provide a uniform angular space between the outside wall of the pipe and the riser.
4. Location: To permit setting of the entering pipes at the correct elevations.
5. Openings shall have a flexible watertight union between pipe and the manhole base.
   a. Cast into the manhole base and sized to the type of pipe being used.
   b. Type of flexible joint being used shall be approved by the Engineer.

2.2 FRAMES AND COVERS

A. Cast iron manhole frames and covers shall be cast of material conforming to the requirements of ASTM A48 Grade 30 and be of uniform quality, free from blowholes, porosity, hard spots, shrinkage distortion or other defects. They shall be smooth and well-cleaned by shotblasting or other approved method. They shall be of heavy duty construction weighing not less than 136 kg and machined on both vertical and horizontal seating surfaces. Covers shall be of checkered top design embossed with the word "WATER", "SEWER" or "DRAIN", as applicable, in 51 mm letters. Frames shall be provided with four 25 mm diameter holes spaced 90° apart around the base flange.

B. Minimum clear opening of 605 mm.

C. Fully machined bearing surfaces to prevent rocking under traffic.

D. Constructed to support an HS-20 wheel loading.

E. Hardware for attaching manhole frames to cone sections shall consist of 19 mm diameter continuously threaded lagstud, field cut to desired length, 51 mm diameter heavy duty flat washers, lock washers and heavy hex lag nuts.

2.3 MANHOLE STEPS

A. Copolymer polypropylene type designed with a minimum concentrated live load of 136 kg and meeting ASTM 2146 Polypropylene.

2.4 Each section of the precast manholes shall have two tapered holes for the purpose of handling and setting.

2.5 The boot type pipe to manhole seal shall be of molded neoprene compound conforming to ASTM C443, with 10 mm wall thickness throughout. A series of beads shall be molded into the boot surfaces that contact the manhole part and pipe barrel to fill surface irregularities when clamped in place. Boot attachment bands and draw bolts shall be corrosion resistant non-magnetic stainless steel.

2.6 JOINTS

A. Precast concrete manhole sections shall be of lapped joint construction. All joints shall be triple sealed with:

1. Flexible butyl resin sealant on the inner lap conforming to Federal Specification SS-S210A and AASHTO M-1983, Minimum acceptable product application range shall be –12.2°C to 54.4°C.
2. Flexible strip consisting of butyl rubber-hydrocarbon (24±1%) and sodium bentonite (75±1%) sealant on the outer lap. Minimum acceptable product application range shall be -15°C to 51.7°C.
3. Flexible 230 mm wide wrap consisting of 1.1 mm EPDM rubber backing supporting a 0.9 mm thick self-bonding butyl compound applied to the exterior face of the manhole and centered on the joint.

B. All sealing components shall be applied to clean, dry, primed surfaces, prewarmed if necessary, in accordance with manufacturer's instructions. All joint sealants shall be fully applied prior to vacuum testing.

2.7 Four 19 mm x 100 mm tie loops, with threads protected by plastic inserts and spaced 90° apart shall be cast in the top of each cone section to allow securing manhole frames to the cone section with 19 mm diameter continuously threaded lag stud.

2.8 FRAME RISER RINGS

A. Concrete frame riser rings shall be cast-in-place and reinforced with two #3 bar hoops per 100 mm of height, #9 gauge wire lifting loops exterior of the manhole frame mounting flange, and four 51 mm diameter PVC sleeves spaced 90° apart and centered on the 19 mm lagstud as shown.

PART 3 - EXECUTION

3.1 CONSTRUCTION

A. Excavation and backfilling for manholes shall conform to the appropriate sections of the sewer construction item of these specifications.

1. Manholes shall be placed on a level foundation of compacted crushed stone of not less than 200 mm in depth. The crushed stone shall be brought to accurate level and grade such that when the manhole base section is placed, the sewer pipe inverts are at the elevation specified.
2. The base section shall be reset, if necessary, to achieve design pipe grade. Manhole backfill shall be crushed stone bedding material to 610 mm above the pipes.
3. Pipe penetrations shall be spaced vertically above the tub invert to facilitate installation of a 1.2 m cone section with the minimum numbers of riser rings to adjust the frame and cover to finish grade.
4. Manhole sections shall be accurately placed with joints tightly sealed, and manhole rungs vertically aligned. Misaligned manhole rungs shall be cause for rejection.
5. Manhole rim elevations are to be matched to pavement, shoulder, or lawn elevations. All other locations are to have rim elevations 610 mm above existing ground surface unless otherwise noted.
6. Precast barrel sections shall be spaced as to minimize use of cast-in-place riser rings in bringing frames and covers to approximately finish grade. In no case shall the total height of riser rings for a given manhole exceed 150 mm. The joints between the cone section riser rings and manhole frame base flange shall normally be sealed with a heavy bodied bituminous mastic sealant troweled into the sealing surface to a minimum thickness of 3 mm. All excess sealant shall be cleaned from the inside of the completed manhole.
7. Lift holes shall be fully sealed with non-shrink grout prior to testing and backfill.

3.2 PERFORMANCE

A. Precast Risers and Tops:

1. Perform jointing in accordance with manufacturer's recommendations and as approved by the Engineer.
2. Install risers and tops level and plumb.
3. Do not permit water to rise over newly made joints until after inspection by the Engineer.
4. Make all joints watertight.
5. Solidly fill annular spaces around pipes entering the manholes with non-shrink grout.
6. When necessary, core openings carefully to prevent damage to risers and tops. Replace damaged risers and tops at no additional cost to the Owner.

B. Drop Manholes:

1. Free drop inside manholes shall not exceed 610 mm, measured from the invert of the inlet pipe to the invert of the outlet pipe.
2. Where free fall exceeds 610 mm, construct a drop manhole as shown on the Drawings or as directed by the Engineer.

C. Adjust to Grade:

1. Adjust tops of manholes to grade with cast-in-place riser rings.

D. Pipe Connections to Manholes:

1. Connect pipes to manholes with joint design and materials approved by the Engineer.

E. Invert Channels:

1. Smooth and semicircular in shape conforming to the inside of the adjacent sewer section.
2. Make changes in direction of flow with smooth curves having a radius as large as permitted by the size of the manhole.
3. Stop the pipes at the inside face of the manhole where changes of direction occur.
4. Form invert channels with brick or other methods approved by the Engineer.
5. Slope the floor of the manhole to the flow channel, or as directed by the Engineer.

F. Masonry:

1. Laying Brick:
    a. Use only clean bricks in brickwork for catch basins.
    b. Moisten the brick by suitable means until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid.
    c. Lay each brick in full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and thoroughly bond as directed.
    d. Construct all joints in a neat workmanlike manner. construct the brick surfaces inside the manholes so they are smooth with no mortar extending beyond the bricks and no voids in the joints.
    e. Manhole channel inverts and shelves shall be of brick masonry built with care. The brick work shall be neatly laid out, and accurately cut as necessary, to provide a uniform snag-free transition between all pipes. The invert shall be laid in a stretcher pattern in the form of a half pipe section with vertical sidewalls. Channel sides shall be raised vertically from the spring line of the outlet pipe to a minimum of one full course above the highest influent pipe crown. Where changes in

direction are necessary the invert shall be shaped with as great a radius as possible. Longitudinally the finished shelf shall be level. Transversely the finished shelf shall slope to the channel at the rate of 42 mm per meter.

2. Curbing:
   a. Protect brick masonry from drying too rapidly by using burlaps which are kept moist, or by other approved means.
   b. Protect brick masonry from the weather and frost as required.

G. Frames and Covers:

1. Set all frames in a full bed of mortar, true to grade and concentric with the manhole opening.
2. Completely fill all voids beneath the bottom flange to make a watertight fit.
3. Place a ring of mortar at least 25 mm thick around the outside of the bottom flange, extending to the outer edge of the manhole all around its circumference.
4. Clean the frame seats before setting the covers in place.
5. All manhole frames shall be secured to the cone section with 19 mm diameter lagstud mounting hardware.

H. Manhole Steps:

1. Thoroughly clean all surface to be embedded with a suitable cleaning agent to ensure that the surfaces are free from all foreign matter such as dirt, oil and grease.
2. All steps shall be driven into sockets in the walls of the precast section so as to form a continuous ladder with a distance of 300 mm between steps.

I. Installation of Steps:

1. Provide manhole steps of the size, shape, material and spacing as shown on the Drawings.
2. Install manhole steps in strict accordance with the manufacturer's instructions and recommendations. Steps shall properly line up with each other and with the manhole cover.

3.3 MANHOLE TESTING

A. General:

1. Perform vacuum tests on all manholes.
2. All testing must be performed in the presence of the Engineer.

B. Vacuum test:

1. The vacuum test shall be performed after backfilling the manholes. The boot clamps shall be properly tightened to prevent the boot from being sucked into the manhole. Proper bracing of stub ends is required. The test shall be run at the following rate and test times.
    a. For 1.2 m or 1.8 m diameter manholes:
        1) Initial pressure test – 35 kPa (i.e., 35 kPa absolute).
        2) Test time – 3.5 kPa drop to 30.5 kPa in 2 minutes minimum allowable, for 0-3 m deep manholes, 2½ minute minimum allowable for 3 m – 4.5 m deep manholes; 3 minutes minimum allowable for 4.5 m-7.6 m deep manholes.
2. If pressure drop exceeds 3.5 kPa within the specified time the manhole shall be repaired and retested until it passes the vacuum test.
    a. If manhole can not be sealed from the interior, it shall be excavated, the seals repaired and as necessary and rebackfilled prior to testing.
    b. All tests for acceptance of the completed manhole shall be accomplished only in the presence of the inspection Engineer.

3.4 MANHOLES CONSTRUCTED ON EXISTING SEWERS

A. Construct manholes on existing sewers as shown and outlined below:

1. Locate manhole, confirm and invert elevations, and pipe size and type.
2. Excavate pipe, demolishing existing manhole as necessary.
3. Construct new manhole, including base, as specified herein. Bypass or control sewer flow as necessary.
4. Furnish and install pipe connector stubs and adaptor couplings as necessary to reconnect all pipes.

3.5 PAYMENT/MEASUREMENT

A. See section 604 in MDOT Standard Specifiactions.

END OF SECTION

January 3, 2003

SPECIAL PROVISION
SECTION 812
SEWER MANHOLE

Description This work shall consist of the installation and adjustment of manholes as indicated in the Bid Book, Plans, or as directed by the Resident.

Sewer Manhole shall consist of removing an existing manhole and replacing with a new manhole in accordance with Section 604 - Manholes, Inlets, and Catch Basins.

Adjust Sewer Manhole to Grade shall consist of adjusting a manhole to the required final grade, including any lowering and any other adjustments that may be necessary prior to setting the final grade and in accordance with this Section and Section 604 - Manholes, Inlets, and Catch Basins.

Pay Item		Pay Unit
812.162	Adjust Sewer Manhole to Grade	Each

Permits & Cultural Resources Unit

PIN #: 8593.00 Location: Hampden Permit Member: Rhonda Poirier
Photographs Database/Projex ☒ Package to ENV Coordinator: 11/15/02

☒ **HISTORIC AND CULTURAL RESOURCES**

MHPC Historic Resources	N/A ☐	Applicable☒	Approved ☒
MHPC Archeological Resources	N/A ☐	Applicable☒	Approved ☒
Advisory Council on Hist Preservation	N/A ☒	Applicable☐	Approved ☐
NPS Recordation	N/A ☒	Applicable☐	Approved ☐
State Recordation	N/A ☒	Applicable☐	Approved ☐

☒ **4(f) and 6(f)**

Section 4(f)	N/A ☒	Applicable☐	Approved ☐
LAWCON 6(f)	N/A ☒	Applicable☐	Approved ☐

☒ **Maine Department of Environmental Protection (MDEP) Site Location of Development**
N/A ☒ Applicable ☐ Approved ☐

☒ **Local Zoning, Title 30-A, Section 4325-6**.
Is the project something other than the highway and bridge system, such as a maintenance lot, building/parking facility? Yes ☐ No ☒ If no, the project is exempt.
If yes, continue. Does the town in which the project is located have a comprehensive plan consistent with the Growth Management Program? Yes ☐ No ☒ If no, the project is exempt.
If yes, local zoning ordinances and/or permits are needed. Approved ☐

☒**Maine Department of Inland Fisheries and Wildlife (MDIFW) Essential Habitat**

Eagle Nest	N/A ☒	Applicable ☐	Approved ☐
Piping Plover	N/A ☒	Applicable ☐	Approved ☐
Roseate Tern	N/A ☒	Applicable☐	Approved ☐

☒ **United States Fish and Wildlife Service (USFWS), Migratory Bird Act**
N/A ☒ Applicable ☐

☒ **Maine Department of Conservation/ Public Lands, Submerged Land Lease**
N/A ☒ Applicable ☐

☒ **Environmental Protection Agency (EPA), National Pollutant Discharge Elimination System (NPDES)**
N/A ☒ Applicable ☐ NOI Submitted ☐

☒ **Land Use Regulation Commission (LURC)** ☒ Not Applicable

No permit	☐	
Notice	☐	Approved ☐
Permit	☐	Approved ☐

☒ **Maine Department of Environmental Protection (MDEP), Natural Resource Protection Act**

No permit required	☐	
Exempt	☐	(Must use erosion and sediment control and not block fish passage.)
PBR	☒	Approved ☒
Tier 1	☐	Approved ☐
Tier 2	☐	Approved ☐
Tier 3	☐	Approved ☐

☐ **Army Corps of Engineers (ACOE), Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.**

No permit required ☐	
Category 1-NR☒	Approved ☐
Category 2☐	Approved ☒
Category 3☐	Approved ☐

☒ **IN-WATER TIMING RESTRICTIONS:** 105 Special Provision ☐ n/a ☒
No instream work on this project.

☒ Special Provision 656, Erosion Control Plan

* Boxes marked in red indicate items that are attached and need to be placed in the contract by the Project Manager.

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Chapter 305)

■ **MDOT PIN: 8953.00**

Name of Applicant: State of Maine Department of Transportation **Name of Contact:** David Gardner
Mailing Address: 16 Station State House **Town/City:** Augusta **State:** Me. **Zip Code:** 04330-0016
Daytime Telephone #: (207)-624-3105 **Name of Wetland, Water Body or Stream:** unnamed wetland

Detailed Directions to Site: From Bangor, take Route 1A south to East Hampden. The project begins at Wheeldon Street and ends at the Hampden/Bangor town line.

Town/City: Hampden **Map #:** N/A **Lot #:** N/A **County:** Penobscot

Description of Project:. This is a highway improvement project which will impact less than 4,300 square feet of shrub scrub wetland in the vicinity of School House Lane. The project will be performed in accordance with erosion control measures conforming with the latest versions of the *State of Maine Department of Transportation Standard Specifications for Highways and Bridges* and the *Department of Transportation's Best Management Practices for Erosion and Sediment Control.*

Part of a larger project? ☐**Yes** ☒**No**

(**CHECK ONE**) This project... ☐ does ☑ does not ...involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

☐Sec. (2) Soil Disturbance	☐Sec. (8) Shoreline stabilization	☐Sec. (14) Piers, Wharves & Pilings
☐Sec. (3) Intake Pipes	☐Sec. (9) Utility Crossing	☐Sec. (15) Public Boat Ramps
☐Sec. (4) Replacement of Structures	☐Sec. (10) Stream Crossing	☐Sec. (16) Coastal Sand Dune Projects
☐Sec. (5) REPEALED	☒Sec. (11) State Transport. Facilities	☐Sec. (17) Transfers/Permit Extension
☐Sec. (6) Movement of Rocks or Vegetation	☐Sec. (12) Restoration of Natural Areas	☐Sec. (18) Maintenance Dredging
☐Sec. (7) Outfall Pipes	☐Sec. (13) F&W Creation/Enhance/Water Quality Improvement	

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that ***this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.***

I have attached all of the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- ■ **A $50 (non-refundable) payment shall be done by internal billing.**
- ■ ***Attach* a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.**
- ❑ ***Attach* photographs showing existing site conditions (unless not required under standards).**

Signature of Applicant: _____ **Date:** 01/15/14
John E. Dority, Chief Engineer

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection **at the appropriate regional office listed below**. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

AUGUSTA DEP STATE HOUSE STATION 17 AUGUSTA, ME 04333-0017 (207)287-2111 PORTLAND DEP 312 CANCO ROAD PORTLAND, ME 04103 (207)822-6300 BANGOR DEP 106 HOGAN ROAD BANGOR, ME 04401 (207)941-4570 PRESQUE ISLE DEP 1235 CENTRAL DRIVE PRESQUE ISLE, ME 04769 (207)764-0477

OFFICE USE ONLY		Ck.#	Staff		Staff	
PBR #	FP		Date	Acc. Date	Def. Date	After Photos

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Chapter 305)

PLEASE TYPE OR PRINT IN *BLACK INK ONLY*

Name of Applicant:	Hampden Water District			**Name of Owner:**	Cameron Torrey		
Mailing Address:	P.O. Box 218			**Town/City:**	Hampden		
State:	ME	**Zip Code:**	04444	**Daytime Telephone No: (include area code)**	862-3490		
Name of Wetland, Water Body or Stream:	SUCKER BROOK						
Detailed Directions to Site:	Brook is located on Route 1 in Hampden Maine, approximately .7 of a mile northeast of Wheeldon Street. And approximately .6 of a mile southwest of Old County Road.						
Town/City:	Hampden, Maine	**Map #:**	50	**Lot #:**	20-34	**County:**	Penobscot
Description of Project:	Replacement of approx. 7500 feet of 6" water main along Route 1 in Hampden Maine, as part of a Maine DOT road reconstruction project. A 12" water main will be installed as a replacement. House service connections will also be a p of the overall project. Miscellaneous valves, hydrants and fittings will also be installed.						
				Part of a larger project?		**YesX**	**No**

(CHECK ONE) This project: does ☐ does not ■ involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

- ☐ Sec. (2) Soil Disturbance
- ☐ Sec. (3) Intake Pipes
- ☐ Sec. (4) Replacement of Structures
- ☐ Sec. (5) REPEALED
- ☐ Sec. (6) Movement of Rocks or Vegetation
- ☐ Sec. (7) Outfall Pipes
- ☐ Sec. (8) Shoreline stabilization
- ☐ Sec. (9) Utility Crossing
- ■ Sec. (10) Stream Crossing
- ☐ Sec. (11) State Transportation Facilities
- ☐ Sec. (12) Restoration of Natural Areas
- ☐ Sec. (13) F&W Creation/Enhance/Water Quality Improvement
- ☐ Sec. (14) Piers, Wharves & Pilings
- ☐ Sec. (15) Public Boat Ramps
- ☐ Sec. (16) Coastal Sand Dune Projects
- ☐ Sec. (17) Transfers/Permit Extension
- ☐ Sec. (18) Maintenance Dredging

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that ***this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.***

I have attached all of the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- ■ ***Attach*** **a check for $50 (non-refundable) made payable to: "Treasurer, State of Maine".**
- ■ ***Attach*** **a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.**
- ■ ***Attach*** **photographs showing existing site conditions (unless not required under standards).**

Signature of Applicant:	Cameron Torrey G.M.	**Date:**	12/16/03

Keep a copy as a record of permit. Send two copies of the form with one set of attachments via certified mail to the Maine Dept. of Environmental Protection **at the appropriate regional office listed below.** The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.** Do not alter MSWORD template form. Altered forms will not be accepted.

STATE HOUSE STATION 17
AUGUSTA, ME 04333-0017
(207)287-2111

PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207)822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207)941-4570

PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207)764-0477

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

Chapter 305: PERMIT BY RULE Section 11
State Transportation Facilities

1. Introduction. A "permit by rule" or "PBR", when approved by the Department of Environmental Protection (DEP), is an approval for an activity that requires a permit under the Natural Resources Protection Act (NRPA). Only those activities described in this chapter may proceed under the PBR process. A PBR activity will not significantly affect the environment if carried out in accordance with this chapter, and generally has less of an impact on the environment than an activity requiring an individual permit. A PBR satisfies the Natural Resources Protection Act (NRPA) permit requirement and Water Quality Certification requirement.

If a proposed activity is not described in this chapter, or will not be conducted in accordance with the standards of this chapter, the applicant must obtain an individual permit prior to beginning the activity.

A. Location of activity. The location of an activity may affect whether an activity qualifies for PBR, and whether review by the Department of Inland Fisheries and Wildlife is required.

(1) Type of resource. For some types of activities, the availability of a PBR is affected by the type of natural resource in or adjacent to which the activity is proposed. For example, an applicant proposing an activity consisting of "Movement of rocks or vegetation" may receive a PBR only if the activity will take place in a great pond, river, stream or brook. Limitations concerning the location of activities are addressed in the "Applicability" provision in each section of this chapter.

(2) Essential habitat. Essential habitats include areas critical to the survival of threatened and endangered species such as the bald eagle, least tern, roseate tern, and piping plover. If the activity is located in essential habitat, such as near an eagle nesting site, a PBR is only available if the applicant obtains written approval from the Department of Inland Fisheries and Wildlife (IF&W). This approval from IF&W must be submitted to the DEP with the PBR notification form, and the applicant must follow any conditions stated in the IF&W approval.

NOTE: Maps showing areas of essential habitat are available from the Department of Inland Fisheries and Wildlife regional headquarters, municipal offices, the Land Use Regulation Commission (for unorganized territories) and DEP regional offices. If the activity is located in essential habitat, IF&W must be contacted to request and obtain a "certification of review and approval".

B. Notification. The applicant must file notice of the activity with the DEP prior to beginning work on the activity. The notification must be on a form provided by the DEP and must include any submissions required in this chapter. The applicant must keep a copy to serve as the permit.

The notification form must be sent to the DEP by certified mail (return receipt requested), or hand delivered to the DEP and date stamped by the department.

C. Effective period

(1) Beginning of period. The PBR becomes effective 14 calendar days after the DEP receives the notification form, unless the DEP approves or denies the PBR prior to that date. If the DEP does not speak with or write to the applicant within this 14 day period regarding the PBR notification, the applicant may proceed to carry out the activity.

There are three exceptions regarding the effective date of an approved PBR:

(a) Activities listed in Section 10 (Stream crossings) occurring in association with forest management are exempt from the 14 day waiting period.

(b) Activities listed in Section 2 (Soil disturbance) and Section 10 (Stream crossings) performed or supervised by individuals currently certified in erosion control practices by the DEP are exempt from the 14 day waiting period. To be certified in erosion control practices, an individual must successfully complete all course requirements of the Voluntary Contractor Certification Program administered by the DEP's Nonpoint Source Training and Resource Center.

(c) Activities that are part of a larger project requiring a permit under the Site Location of Development or the Storm Water Management Acts may not proceed until any required permit under those laws is obtained.

NOTE: Activities that are part of a larger project may require other permits from the DEP also. These other laws may prohibit the start of construction of any part of the project unless a permit under that law is obtained. In these cases, while not a violation of this rule, starting work on a PBR approved activity would be a violation of those other applicable laws.

(2) End of period. The PBR is generally effective for 2 years from the date of approval, except that a PBR for "Replacement of structures" under Section 4 is effective for 3 years.

NOTE: Activities that qualify under this chapter may need to meet other local, state and federal requirements. Examples -- (1) If an activity extends below the low water line of a lake, coastal wetland or international boundary water, the applicant should contact the Bureau of Parks and Lands (287-3061) concerning possible lease or easement requirements, or (2) If an activity will involve work below the mean high water line in navigable waters of the United States, the applicant should contact the Army Corps of Engineers (623-8367).

D. Discretionary authority. Notwithstanding compliance with the PBR applicability requirements and standards set forth in this chapter, the DEP may require an individual permit application to be filed in any case where credible evidence indicates that the activity:

(1) May violate the standards of the NRPA (38 M.R.S.A. Section 480-D);

(2) Could lead to significant environmental impacts, including cumulative impacts; or

(3) Could adversely impact a resource of special concern.

If an individual permit is required pursuant to this subsection, the DEP shall notify the applicant in writing within the 14 calendar day waiting period described in sub-section (C) above. When the DEP notifies an applicant than an individual permit is required, no work may be conducted unless and until the individual permit is obtained.

E. Violations. A violation of law occurs when a person, or his or her agent, performs or causes to be performed any activity subject to the NRPA without first obtaining a permit from the DEP, or acts contrary to the provisions of a permit. The person, his or her agent, or both, may be held

responsible for the violation. Commonly, the "person" is the landowner, and the "agent" is the contractor carrying out the activity. A violation occurs when:

(1) An activity occurs that is not allowed under PBR, whether or not a PBR notification form has been filed with and/or approved by the DEP;

(2) An activity occurs that is allowed under PBR, but a PBR for the activity has not become effective prior to the beginning of the activity; or

(3) An activity occurs that is allowed under PBR and a PBR for the activity is in effect, but the standards specified in this chapter are not met.

See the "applicability" provision under each activity for rules concerning what activities are allowed under PBR. A PBR is only valid for the person listed on the notification form, or for his or her agent.

Each day that a violation occurs or continues is considered a separate offense. Violations are subject to criminal penalties and civil penalties of not less than $100 nor more than $10,000 for each day of that violation (38 M.R.S.A. Section 349).

NOTE: A local Code Enforcement Officer (CEO) may take enforcement action for a violation of the Natural Resources Protection Act if he or she is authorized to represent a municipality in District Court, and he or she has been certified as familiar with court procedures, 30-A M.R.S.A. Section 4452(7).

Chapter 305 Section 11

State transportation facilities

A. Applicability

(1) This section applies to the maintenance, repair, reconstruction, rehabilitation, replacement or minor construction of a State Transportation Facility carried out by, or under the authority of, the Maine Department of Transportation or the Maine Turnpike Authority, including any testing or preconstruction engineering, and associated technical support services.

(2) This section does not apply to an activity within a coastal sand dune system.

NOTE: The construction of a transportation facility other than roads and associated facilities may be subject to the Storm Water Management Law, 38 M.R.S.A. Section 420-D.

B. Standards

(1) Photographs of the area to be altered by the activity must be taken before work on the site begins. The photographs must be kept on file and be made available at the request of the DEP.

(2) The activity must be reviewed by the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Atlantic Salmon Authority, and the DEP's Division of Environmental Assessment prior to the notification being filed with the DEP. The activity must be performed according to any recommendations from these authorities.

(3) The activity must be performed in accordance with erosion control measures conforming with the State of Maine Department of Transportation Standard Specifications for Highways and Bridges Revision of April 1995 and with the Department of Transportation's Best Management Practices for Erosion and Sediment Control, September 1997.

NOTE: Guidance on the use of erosion control best management practices can be obtained from the on site Construction Manager.

(4) Alignment changes may not exceed a distance of 200 feet between the old and new center lines in any natural resource.

(5) The activity may not alter more than 300 feet of shoreline (both shores added together) within a mile stretch of any river, stream or brook, including any bridge width or length of culvert.

(6) The activity may not alter more than 150 feet of shoreline (both shores added together) within a mile stretch of any outstanding river segment identified in 38 M.R.S.A. 480-P, including any bridge width or length of culvert.

(7) The activity must minimize wetland intrusion. The activity is exempt from the provisions of Chapter 310, the Wetland Protection Rules, if the activity alters less than 15,000 square feet of natural resources per mile of roadway (centerline measurement) provided that the following impacts are not exceeded within the 15,000 square foot area:

(a) 1,000 square feet of coastal wetland consisting of salt tolerant vegetation or shellfish habitat; or

(b) 5,000 square feet of coastal wetland not containing salt tolerant vegetation or shellfish habitat; or

(c) 1,000 square feet of a great pond.

All other activities must be performed in compliance with all sections of Chapter 310, the Wetland Protection Rules, except 310.2(C), 5(A), 9(1), 9(B) and 9(C).

(8) The activity may not permanently block any fish passage in any watercourse containing fish. The applicant must improve passage beyond what restriction may already exist unless the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Atlantic Salmon Authority and the DEP's Division of Environmental Assessment concur that the improvement is not necessary.

(9) Rocks may not be removed from below the normal high water line of any coastal wetland, freshwater wetland, great pond, river, stream or brook except to the minimum extent necessary for completion of work within the limits of construction.

(10) If work is performed in a river, stream or brook that is less than three feet deep at the time and location of the activity, with the exception of culvert installation, the applicant must divert flow away from the activity while work is in progress.

(a) Diversion may be accomplished by the use of stable, inert material. No more than two thirds (2/3) of stream width may be diverted at one time.

(b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream bottom must be restored to its original condition.

(c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.

NOTE: Guidance on the appropriate location of a diversion and materials which should be used for a stream diversion can be obtained from the on site Construction Manager.

(11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom.

(12) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms.

(13) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation. Any debris generated during the activity must be prevented from washing downstream and must be removed from the wetland or water body. Disposal of debris must be in conformance with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 et seq.

(14) Work below the normal high water line of a great pond, river, stream or brook must be done at low water except for emergency work or work agreed to by the resource agencies listed in paragraph 2 above. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.

(15) Perimeter controls must be installed before the work starts. Disturbance of natural resources beyond the construction limits shown on the plans is not allowed under this rule.

NOTE: Guidance on the location of construction limits can be obtained from the on site Construction Manager.

(16) The use of untreated lumber is preferred. Lumber pressure treated with chromated copper arsenate (CCA) may be used, provided it is cured on dry land in a manner that exposes all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where it will contact water.

(17) A temporary road for equipment access must be constructed of crushed stone, blasted ledge, or similar materials that will not cause sedimentation or restrict fish passage. Such roads must be completely removed at the completion of the activity. In addition, any such temporary roads which are in rivers, streams or brooks, must allow for a passage of stormwater flows associated with a 10-year storm.

(18) Soil may not be disturbed during any period when soils are saturated due to rain or snow melt, except as necessary to protect work in progress or as required for bridge maintenance activities. Areas where soils are saturated (i.e. water drips from the soil when squeezed by hand, or the soil is capable of being rolled into a rod 1/8th inch in diameter that does not crumble) must be immediately mulched if they are disturbed.

(19) Disturbed soil must be protected within one week from the time it was last actively worked, and prior to any storm event, using temporary or permanent measures such as the placement of riprap, sod, mulch, erosion control blankets, or other comparable measures.

(20) Hay bale or straw mulch, where used, must be applied at a rate of at least one bale per 500 square feet (1 to 2 tons per acre).

(21) If mulch is likely to be moved because of steep slopes or wind exposure, it must be anchored with netting, peg and twine, binder or other suitable method and must be maintained until a catch of vegetation is established over the entire disturbed area.

(22) In addition to the placement of riprap, sod, erosion control blankets or mulch, additional steps must be taken where necessary to prevent sedimentation of the water Evidence of sedimentation includes visible sheet, rill or gully erosion, discoloration of water by suspended particles and/or slumping of banks. Silt fences, staked hay bales and other sedimentation control measures, where planned for, must be in place prior to the commencement of an activity, but must also be installed whenever necessary to prevent erosion and sedimentation.

NOTE: Guidance on the location and proper installation of erosion control measures can be obtained from the on site Construction Manager.

(23) Temporary erosion control measures must be maintained and inspected weekly until the site is permanently stabilized with vegetation or other permanent control measures. Erosion control measures must also be inspected immediately prior to and following storms.

(24) Permanent erosion control measures protecting all disturbed areas must be implemented within 30 days from the time the areas were last actively worked, or for fall and winter activities by the following June 15, except where precluded by the type of activity (e.g. riprap, road surfaces, etc.). The permanent erosion control measures must be maintained.

(25) The applicant shall immediately take appropriate measures to prevent erosion or sedimentation from occurring or to correct any existing problems, regardless of the time of year.

(26) Non-native species may not be planted in restored areas.

(27) Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 et seq.

(28) Disturbance of vegetation must be avoided, if possible. Where vegetation is disturbed outside of the area covered by any road or structure construction, it must be reestablished immediately upon completion of the activity and must be maintained.

(29) A vegetated area at least 25 feet wide must be established and maintained between any new stormwater outfall structure and the high water line of any open water body. A velocity reducing structure must be constructed at the outlet of the stormwater outfall that will create sheet flow of stormwater, and prevent erosion of soil within the vegetated buffer. If the 25 foot vegetated buffer is not practicable, the applicant must explain the reason for a lesser setback in writing. Approval from the DEP must be in writing and any recommendations must be incorporated into the activity.

C. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

(1) Diversion. A rerouting of a river, stream or brook to a location outside of its established channel.

(2) Fill. a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or immediately adjacent to a wetland or water body.

(3) Floodplain wetlands. Freshwater wetlands that are inundated with flood water during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Agency or other site specific information.

(4) Riprap. Rocks that are fit into place, usually without mortar, on a slope as defined in the State of Maine, Department of Transportation, Standard Specifications for Highway and Bridges, revision of April 1995.

Version: ACOE Screen-5/01

Project Information for Army Corps of Engineers Programmatic General Permit
Applicant: Maine Department of Transportation

PIN: 8593.00 Location: Hampden Scope: Highway Improvements Date: 01/13/04

Army Corps of Engineers Permit Level

☒ Category I (non-reporting)
- ☒ < 4,300 s.f. inland wetland impacts
- ☐ Instream work between July 15 - October 1
- ☐ Bank Stabilization, < 500 ft. length and< 1 cy fill/linear foot
- ☐ Repair/Maintenance with no substantial expansion or change in use
- ☐ Maintenance dredging of less than 1,000 cy with upland disposal
- ☐ No Atlantic Salmon Commission (Norm Dube) concerns in EFH
- ☐ No National Marine Fisheries (Sean McDermott) concerns in EFH

☐ Category II (screening)
- ☐ 4,300 s.f. to 3 acres inland wetland impacts
- ☐ Instream work outside of July 15 - October 1 Corps window
- ☐ Replacement of non-serviceable fills, or repair or maintenance of serviceable fills with expansion of any amount up to 1 acre, or with change in use.
- ☐ Bank Stabilization, exceeding Category 1.
- ☐ < 1 acre Tidal or Navigable waterway fill.
- ☐ < 1 acre Temporary Tidal Marsh impacts
- ☐ < 1000 s.f. of permanent fill to tidal marsh, mudflat, or vegetated shallows.
- ☐ Maintenance dredging greater than 1,000 cy, or new dredging up to 25,000 cy
- ☐ Work within ¼ mile of a Wild and Scenic River
- ☐ Impacts to a vernal pool
- ☐ Instream work in E.F.H. for Atlantic Salmon

☐ Category III (Individual Permit)
- ☐ Replacement of non-serviceable fills, or repair or maintenance of serviceable fills with greater than 1 acre or expansion.
- ☐ > 3 acres inland wetland impacts (>1 acre for new location and/or viable wetlands)
- ☐ > 1 acre of Tidal and Navigable waterway fill
- ☐ > 1000 s.f. of permanent fill to tidal marsh, mudflat, or vegetated shallows.
- ☐ Maintenance dredging any amout affecting special aquatic sites or new dredging greater than 25,000 cy

MDEP NRPA Permit Level

☒ Permit by Rule, ☐ Tier 1, ☐ Tier 2, ☐ Tier 3 (Individual)
Date Applied: 1/16/04 Date Approved:

Wetland Impacts

Inland Wetlands (U.S. Waters):	4,260	sq.ft.
Tidal Waters / Navigable Waters:		s.f.
Tidal Marsh/Mudflat/Vegetated Shallows:		s.f.

Fishery Recommendations: n/a; No in-stream work.

Tribal Letter Sent: n/a

MHPC (Section 106) Submitted: 3/26/01 Approved: 4/7/03

Requests:

Attachments

☒ MDEP Application ☒ Vicinity Map (USGS) ☒ Other: Tribal Contact Letter
☒ 8 ½ " by 11" plan sheets showing affected wetland/waterway areas

Permit No: GP-39

Effective Date: Sept. 29, 2000
Expiration Date: Sept. 29, 2005

Applicant: General Public, State of Maine

DEPARTMENT OF THE ARMY
PROGRAMMATIC GENERAL PERMIT
STATE OF MAINE

The New England District of the U.S. Army Corps of Engineers hereby issues a programmatic general permit (PGP) that expedites review of minimal impact work in coastal and inland waters and wetlands within the State of Maine. Activities with minimal impacts, as specified by the terms and conditions of this general permit and on the attached DEFINITION OF CATEGORIES sheets, are either non-reporting (provided required local and state permits are received), or are reporting, to be screened by the Corps and Federal Resource Agencies for applicability under the general permit. This general permit does not affect the Corps individual permit review process or activities exempt from Corps jurisdiction.

Activities Covered: work and structures that are located in, or that affect, navigable waters of the United States (regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899) and the discharge of dredged of fill material into waters of the United States (regulated by the Corps under Section 404 of the Clean Water Act), and the transportation of dredged material for the purpose of disposal in the ocean (regulated by the Corps under Section 103 of the Marine Protection, Research and Sanctuaries Act).

PROCEDURES:

A. State Approvals

For projects authorized pursuant to this general permit that are also regulated by the State of Maine, the following state approvals are also required and must be obtained in order for this general permit authorization to be valid (applicants are responsible for ensuring that all required state permits and approval have been obtained):

(a) Maine Department of Environmental Protection (DEP): Natural Resources Protection Act permit, including permit-by-rule and general permit authorizations; Site Location and Development Act permit; and Maine Waterway Development and Conservation Act.
(b) Maine Department of Conservation: Land Use Regulation Commission (LURC) permit.
(c) Maine Department of Marine Resources: Lease.
(d) Bureau of Public Lands, Submerged Lands: Lease.

Note that projects not regulated by the State of Maine (e.g., seasonal floats or moorings) may still be authorized by this general permit.

B. Corps Authorizations: Category I (Non-Reporting)

Work in Maine subject to Corps jurisdiction that meets the definition of Category I on the attached DEFINITION OF CATEGORIES sheets and that meets all of this permit's other conditions, does not require separate application to the Corps of Engineers. If the State or the Corps does not contact the applicant for PBRs and Tier One permits during the State's Tier One 30-day review period, Corps approval may be assumed and the project may proceed. Refer to the Procedures Section at Paragraph E below for additional information regarding screening.

Note that the review thresholds under Category I apply to single and complete projects only (see special condition 5). **Also note that Category I does not apply to projects occurring in a component of, or within 0.25 miles up and downstream of the main stem or tributaries of a river segment of the National Wild and Scenic River System** (see condition 11, and page 9 for the listed rivers in Maine).

There are also restrictions on other national lands or concerns which must be met in order for projects to be eligible for authorization under this PGP. Refer to special conditions 6-13 under Paragraph F below.

Work that is not regulated by the State of Maine, but that is subject to Corps jurisdiction, is eligible for Corps authorization under this PGP in accordance with the review thresholds and conditions contained herein.

Although Category I projects are non-reporting, the Corps reserves the right to require screening or an individual permit review if there are concerns for the aquatic environment or any other factor of the public interest (see special condition 4 on Discretionary Authority). The Corps review or State/Federal screening process may also result in project modification, mitigation or other special conditions necessary to minimize impacts and protect the aquatic environment as a requirement for PGP approval.

C. Corps Authorization: Category II (Reporting – requiring screening)

APPLICATION PROCEDURES

For projects that do not meet the terms of Category I (see DEFINITION OF CATEGORIES sheets), the Corps, State, and Federal Resource Agencies will conduct joint screening meetings to review applications. If projects are concurrently regulated by the DEP or LURC, applicants do not need to submit separate applications to the Corps. For projects not regulated by DEP or LURC, applicants must submit an application to the Corps Maine Project Office for a case-by-case determination of eligibility under this general permit (Category II). **Category II projects may not proceed until written notification is received from the Corps.**

Category II projects which occur in a component of, or within 0.25 mile up or downstream of the main stem or tributaries of a river segment of the National Wild and Scenic River System, will be coordinated with the National Park Service (see special condition 11, and page 9 for listed rivers in Maine).

There are also restrictions on other national lands or concerns which must be met in order for projects to be eligible for authorization under this PGP. Refer to special conditions 6-14 under Paragraph E below.

Category II applicants shall submit a copy of their application materials to the Maine Historic Preservation Commission and/or applicable Indian tribe(s) at the same time, or before, they apply to the DEP, LURC, or the Corps so that the project can be reviewed for the presence of historic/archaeological resources in the project area that may be affected by the proposed work. **Applications to the DEP or the Corps should include information to indicate that this has been done (applicant's statement or copy of cover letter to Maine Historic Preservation Commission and/or Indian tribe(s)).**

The Corps may require additional information on a case-by-case basis as follows:

(a) purpose of project;

(b) 8 1/2" by 11" plan views of the entire property including property lines and project limits with existing and proposed conditions **(legible, reproducible plans required)**;

(c) wetland delineation for the site, information on the basis of the delineation, and calculations of waterway and wetland impact areas (see special condition 2);

(d) typical cross-section views of all wetland and waterway fill areas and wetland replication areas;

(e) delineation of submerged aquatic vegetation, e.g., eel grass beds, in tidal waters;

(f) area, type and source of fill material to be discharged into waters and wetlands, including the volume of fill below ordinary high water in inland waters and below the high tide line in coastal waters;

(g) mean low, mean high water and high tide elevations in navigable waters;

(h) limits of any Federal navigation project in the vicinity and State Plane coordinates for the limits of the proposed work closest to the Federal project;

(i) on-site alternatives analysis (contact Corps for guidance);

(j) identify and describe potential impacts to Essential Fish Habitat (contact Corps for guidance);

(k) for dredging projects, include:

1) the volume of material and area in square feet to be dredged below mean high water,
2) existing and proposed water depths,
3) type of dredging equipment to be used,
4) nature of material (e.g., silty sand),

5) any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects,
6) information on the location and nature of municipal or industrial discharges and occurrences of any contaminant spills in or near the project area,
7) location of the disposal site (include locus sheet),
8) shellfish survey, and
9) sediment testing, including physical, chemical and biological testing. For projects proposing open water disposal, applicants are encouraged to contact the Corps as early as possible regarding sampling and testing protocols.

The Corps may request additional information. Dredging applicants may be required to conduct a shellfish and/or eel grass survey and sediment testing, including physical, chemical and biological testing. Sediment sampling and testing plans should be prepared or approved by the Corps before the samples are collected.

STATE-FEDERAL SCREENING PROCEDURES:

The Corps intends to utilize the application information required by the State for its regulatory program to the maximum extent practicable and the Corps normally will not be interacting with an applicant who is concurrently making application to the DEP or LURC. Projects not regulated by the State, but needing Corps of Engineers approval, **must apply directly to the Corps**. The joint screening meeting for Category II projects will occur regularly at the Corps or State offices and will involve representatives from the DEP, the Corps, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

The Corps and Federal Resource Agencies will classify the project within the State's review period, not to exceed 60 days, as: 1) approvable under the PGP as proposed; 2) needs additional information, including possible project modification, mitigation or other special conditions to minimize impacts; or 3) exceeds the terms or conditions of the PGP, including the minimal effects requirement, and an individual permit review will be required. In addition, the Corps retains the ability to exercise its discretionary authority and require an individual permit, irrespective of whether the terms and conditions of this general permit are met, based on concerns for the aquatic environment or any factor of the public interest (see special condition 4 on Discretionary Authority). All Category II projects must receive written approval from the Corps before work can proceed. If the project is not approvable as proposed, the DEP, LURC, or the Corps will contact the applicant to discuss the concerns raised. If the applicant is unable to resolve the concerns, the Corps, independently or at the request of the Federal Resource Agencies, will require an individual permit for the project. The applicant will be notified of this in writing, along with information about submitting the necessary application materials. The comments from the Federal Resource Agencies to the Corps may be verbal initially, and must be made within 10 working days of the screening meeting. These comments must be confirmed in writing within 10 calendar days of the verbal response if the Resource Agency(ies) will request an individual permit. The Federal Resource Agency's comments must reflect a concern within their area of expertise, state the species or resources that could be impacted by the project, and describe the impacts that either individually or cumulatively will be more than minimal.

MINERALS MANAGEMENT SERVICE (MMS) REVIEW

For Category II projects which involve construction of solid fill structures or discharge of fills along the coast which may extend the coastline or baseline from which the territorial sea is measured, coordination between the Corps and Minerals Management Service (MMS), Continental Shelf (OCS) Survey Group, will be needed (pursuant to the Submerged Lands Act, 43 U.S.C., Section 1301-1315, 33 CFR 320.4(f). During the screening period, the Corps will forward project information to MMS for their review. MMS will coordinate their determination with the Department of the Interior (DOI) Solicitor's Office. The DOI will have 15 calendar days from the date MMS is in receipt of project information to determine if the baseline will be affected. No notification to the Corps within 15 day review period will constitute a "no affect" determination. Otherwise, the solicitor's notification to the Corps may be verbal but must be followed with a written confirmation within 10 business days from the date of the verbal notification. This procedure will be eliminated if the State of Maine provides a written waiver of interest in any increase in submerged lands caused by a change in the baseline resulting from solid fill structure or fills authorized under this general permit.

D. Corps Authorization: Category III (Individual Permit)

Work that is in the INDIVIDUAL PERMIT category on the attached DEFINITION OF CATEGORIES sheets, or that does not meet the terms and conditions of this general permit, will require an application for an individual permit from the Corps of Engineers (see 33 CFR Part 325.1). The screening procedures outlined above will only serve to delay project review in such cases. The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date. General information and application forms can be obtained at (207) 623-8367 (Maine Field Office), (800) 343-4789, or (800) 362-4367 in Massachusetts. Individual water quality certification and coastal zone management consistency concurrence will be required from the State of Maine before Corps permit issuance.

E. Programmatic General Permit Conditions:

The following conditions apply to activities authorized under the PGP, including all Category I (non-reporting) and Category II (reporting – requiring screening) activities:

GENERAL REQUIREMENTS:

1. **Other Permits**. Authorization under this general permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

2. **Applicability of this general permit shall be evaluated with reference to Federal jurisdictional boundaries**. Applicants are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328-329.

3. **Minimal Effects**. Projects authorized by this general permit shall have minimal individual and cumulative adverse environmental impacts as determined by the Corps.

4. **Discretionary Authority**. Notwithstanding compliance with the terms and conditions of this permit, the Corps of Engineers retains discretionary authority to require review for an individual permit based on concerns for the aquatic environment or for any other factor of the public interest. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant individual review based on the concerns stated above. This authority may be invoked for projects with cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the PGP and that warrants greater review.

   Whenever the Corps notifies an applicant that an individual permit may be required, authorization under this general permit is void and no work may be conducted until the individual Corps permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this general permit.

5. **Single and Complete Projects**. This general permit shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project and/or all planned phases of multi-phased projects shall be treated together as constituting one single and complete project (e.g., subdivisions should include all work such as roads, utilities, and lot development). This general permit shall not be used for any activity that is part of an overall project for which an individual permit is required.

NATIONAL CONCERNS:

6. **St. John/St. Croix Rivers**. This covers work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission. This includes any temporary or permanent use, obstruction or diversion of international boundary waters which could affect the natural flow or levels of waters on the Canadian side of the line, as well as any construction or maintenance of remedial works, protective works, dams, or other obstructions in waters downstream from boundary waters when the activity could raise the natural level of water on the Canadian side of the boundary.

7. **Historic Properties**. Any activity authorized by this general permit shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the Maine Historic Preservation Commission and the National Register of Historic Places. Federally recognized tribes (Penobscots, Passamaquoddys, Micmacs, and Maliseets) may know of the existence of other sites that may be of significance to their tribes. See page 14 for historic properties contacts.

   Applicants with projects which will undergo the screening process (Category II) shall submit a copy of their application materials, with the name and address of the applicant clearly indicated, to the Maine Historic Preservation Commission, 55 Capitol Street, State House Station 65, Augusta, Maine 04333, and to the applicable tribe(s) to be reviewed for the presence of historic and/or archaeological resources in the permit area that may be affected by the proposed work. The Corps will then be notified by the Commission and/or

Tribe within 10 days if there are State and/or tribal concerns that the proposed work will have an effect on historic resources. The applicant should include with their application to the State or the Corps either a copy of their cover letter or a statement of having sent their application material to the Commission and Tribe(s).

If the permittee, either prior to construction or during construction of the work authorized herein, encounters a previously unidentified archaeological or other cultural resource, within the area subject to Department of the Army jurisdiction, that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the District Engineer and the Maine Historic Preservation Commission and/or applicable Tribe(s).

8. **National Lands**. Activities authorized by this general permit shall not impinge upon the value of any National Wildlife Refuge, National Forest, or any area administered by the National Park Service.

9. **Endangered Species**. No activity is authorized under this general permit which
   - may affect a threatened or endangered species or a species proposed for such designation as identified under the Federal Endangered Species Act (ESA),
   - is likely to destroy or adversely modify the critical habitat or proposed critical habitat of such species,
   - would result in a 'take' of any threatened or endangered species of fish or wildlife, or
   - would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.

   Applicants shall notify the Corps if any listed species or critical habitat, or proposed species or critical habitat, is in the vicinity of the project and shall not begin work until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained from the U.S. Fish and Wildlife Service and National Marine Fisheries Service (addresses attached, page 14).

10. **Essential Fish Habitat**. As part of the PGP screening process, the Corps will coordinate with the National Marine Fisheries Service (NMFS) in accordance with the 1996 amendments to the Magnuson-Stevens Fishery and Conservation Management Act to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed "essential fish habitat (EFH)", and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Applicants may be required to describe and identify potential impacts to EFH based upon the location of the project, the activity proposed, and the species present. Conservation recommendations made by NMFS will normally be included as a permit requirement by the Corps. Information on the location of EFH can be obtained from the NMFS regulations (50 CFR Part 600) (address listed on page 14) and on their web site (http://www.nero.nmfs.gov/ro/doc/webintro.html).

The EFH designation for Atlantic salmon includes all aquatic habitats in the watershed of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration:

St. Croix River	Pleasant River	Union River
Boyden River	Narraguagus River	Ducktrap River
Dennys River	Tunk Stream	Sheepscot River
Hobart Stream	Patten Stream	Kennebec River
Aroostook River	Orland River	Androscoggin River
East Machias River	Penobscot River	Presumpscot River
Machias River	Passagassawaukeag River	Saco River

11. **Wild and Scenic Rivers**. Any activity that occurs in a component of, or within 0.25 mile up or downstream of the main stem or tributaries of a river segment of the National Wild and Scenic River System, **must be reviewed by the Corps under the procedures of Category II of this general permit regardless of size of impact**. This condition applies to both designated wild and scenic rivers and rivers designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed work on the resource values of the Wild and Scenic River. The culmination of this coordination will be a determination by the NPS and the Corps that the work: (1) may proceed as proposed; (2) may proceed with recommended conditions; or (3) could pose a direct and adverse effect on the resource values of the river and an individual permit is required. If preapplication consultation between the applicant and the NPS has occurred whereby the NPS has made a determination that the proposed project is appropriate for authorization under this PGP (with respect to wild and scenic river issues), this determination should be furnished to the Corps with submission of the application. The address of the NPS can be found on Page 14 of this permit. *National Wild/Scenic Rivers System (Designated River in Maine) as of 5/2/00*: Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River. Length = 92 miles

12. **Federal Navigation Project**. Any structure or work that extends closer to the horizontal limits of any Corps navigation project than a distance of three times the project's authorized depth (see attached map following page 16 for locations of these projects) shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

13. **Navigation**. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

    The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure

or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

14. **Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest; (c) damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

MINIMIZATION OF ENVIRONMENTAL IMPACTS:

15. **Minimization**. Discharges of dredged or fill material into waters of the United States shall be avoided and minimized to the maximum extent practicable, regardless of review category.

16. **Work in Wetlands**. Heavy equipment working in wetlands shall be avoided if possible, and **if required, shall be placed on mats or other measures taken** to minimize soil and vegetation disturbance. Disturbed areas in wetlands shall be restored to preconstruction contours and conditions upon completion of the work.

17. **Temporary Fill**. Temporary fill in waters and wetlands authorized by this general permit (e.g., access roads, cofferdams) shall be properly stabilized during use to prevent erosion. Temporary fill in wetlands shall be placed on geotextile fabric laid on existing wetland grade. Temporary fills shall be disposed of at an upland site, suitably contained to prevent erosion and transport to a waterway or wetland. Temporary fill areas shall be restored to their approximate original contours but not higher. No temporary fill shall be placed in waters or wetlands unless specifically authorized by the Corps.

18. **Sedimentation and Erosion Control**. Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment. These devices shall be removed upon completion of work and the disturbed areas shall be stabilized. The sediment collected by these devices shall be removed and placed at an upland location in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

19. **Waterway Crossings**.

(a) All temporary and permanent crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, to maintain existing low flows, and to not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
(b) Temporary bridges, culverts, or cofferdams shall be used for equipment access across streams (NOTE: areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of this general permit).
(c) For projects that otherwise meet the terms of Category I, instream construction work shall be conducted during the low flow period July 15 - October 1 in any year. Projects that are not to be conducted during that time period are ineligible for Category I and shall be screened pursuant to Category II, regardless of the waterway and wetland fill and/or impact area.

20. **Discharge of Pollutants**. All activities involving any discharge of pollutants into waters of the United States authorized under this general permit shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the Clean Water Act (33 U.S.C. 1251) and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the Environmental Protection Agency. Applicants may presume that state water quality standards are met with issuance of the 401 Water Quality Certification.

21. **Spawning Areas**. Discharges into known 1) fish and shellfish spawning or nursery areas; and 2) amphibian and waterfowl breeding areas, during spawning or breeding seasons shall be avoided, and impacts to these areas shall be avoided or minimized to the maximum extent practicable during all times of year.

22. **Storage of Seasonal Structures**. Coastal structures such as pier sections and floats that are removed from the waterway for a portion of the year shall be stored in an upland location located above mean high water and not in tidal marsh.

23. **Environmental Values**. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner so as to maintain as much as is practicable, and to minimize any adverse impacts on, existing fish and wildlife and natural environmental values.

24. **Protection of Vernal Pools.** Impacts to uplands in proximity (within 500 feet) to the vernal pools referenced in DEFINITIONS OF CATEGORIES shall be minimized to the maximum extent possible**.**

PROCEDURAL CONDITIONS:

25. **Cranberry Development Projects.** For Cranberry development projects authorized under the PGP, the following conditions apply:

    1. If a cranberry bog is abandoned for any reason, the area must be allowed to convert to natural wetlands unless an individual permit is obtained from the Corps of Engineers allowing the discharge of fill for an alternate use.
    2. No stream diversion shall be allowed under this permit.
    3. No impoundment of perennial streams shall be allowed under this permit.
    4. The project shall be designed and constructed to not cause flood damage on adjacent properties.

26. **Inspections**. The permittee shall permit the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with the terms and conditions of this permit. The District Engineer may also require post-construction engineering drawings for completed work, and post-dredging survey drawings for any dredging work. **To facilitate these inspections, the attached work notification form should be filled out and returned to the Corps for all Category II projects.**

27. **Maintenance**. The permittee shall maintain the work or structures authorized herein in good condition, including maintenance, to ensure public safety. Dredging projects: note that this does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds described on the attached DEFINITION OF CATEGORIES sheets and/or any conditions included in a written Corps authorization.

28. **Property Rights**. This permit does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations. **If property associated with work authorized by the PGP is sold, the PGP authorization is automatically transferred to the new property owner. The new property owner should provide this information to the Corps in writing. No acknowledgement from the Corps is necessary.**

29. **Modification, Suspension, and Revocation**. This permit may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7 and any such action shall not be the basis for any claim for damages against the United States.

30. **Restoration**. The permittee, upon receipt of a notice of revocation of authorization under this permit, shall restore the wetland or waterway to its former condition without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

31. **Special Conditions**. The Corps, independently or at the request of the Federal Resource Agencies, may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties or restoration.

32. **False or Incomplete Information**. If the Corps makes a determination regarding the eligibility of a project under this permit and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the permit shall not be valid and the government may institute appropriate legal proceedings.

33. **Abandonment**. If the permittee decides to abandon the activity authorized under this general permit, unless such abandonment is merely the transfer of property to a third party, he/she must restore the area to the satisfaction of the District Engineer.

34. **Enforcement cases**. This general permit does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps of Engineers or Environmental Protection Agency enforcement action until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action. The Corps may choose not to accept applications or issue permits to any applicant with outstanding violations.

35. **Emergency situations.** This PGP can be used to authorize the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete unexpected and catastrophic event. In such situations and if the work exceeds Category I limitations, if applicant applies to the Corps within 30 days of the event, the Corps will attempt to contact the resource agencies for their approvals but, if unable to contact them, will issue an emergency permit and review them after-the-fact with the agencies at the next joint processing meeting. Proposed work submitted more than 30 days after the emergency will go through the standard PGP procedures.

DURATION OF AUTHORIZATION/GRANDFATHERING:

36. **Duration of Authorization**. Activities authorized under this general permit that have commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will remain authorized provided the activity is completed within twelve months of the date of the general permit's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2 (e)(2). Activities completed under the authorization of the general permit that was in effect at the time the activity was completed will continue to be authorized by the general permit.

37. **Previously Authorized Activities**.

(a) Activities which have commenced (i.e., are under construction or are under contract to commence) prior to the issuance date of this general permit, in reliance upon the terms and conditions of the non-reporting category of the previous Maine PGP shall remain authorized provided the activity is completed within twelve months of the date of issuance of this general permit, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with special condition 4. The applicant must be able to document to the Corps satisfaction that the project was under construction or contract by the appropriate date.

(b) Projects that have received written verification or approval from the Corps, based on applications made to the Corps prior to issuance of this general permit, for the previous Maine SPGP and PGP, Nationwide permits, regional general permits, or letters of permission shall remain authorized as specified in each authorization.

(c) This general permit does not affect activities authorized pursuant to 33 CFR Part 330.3 (activities occurring before certain dates).

{PRIVATE**}**DISTRICT ENGINEER_____ DATE_____

CONTACTS FOR MAINE PROGRAMMATIC GENERAL PERMIT:

U.S. Army Corps of Engineers
Maine Project Office
675 Western Avenue #3
Manchester, Maine 04351
207-623-8367
Fax # 207-623-8206

Federal Endangered Species
U.S. Fish and Wildlife Service
Maine Field Office
1033 South Main Street
Old Town, Maine 04468
207-827-5938
Fax # 207-827-6099

Federal Endangered Species and Essential Fish Habitat
National Marine Fisheries Service
One Blackburn Drive
Gloucester, Massachusetts 01939
978-281-9102
Fax # 978-281-9301

Wild and Scenic Rivers
National Park Service
North Atlantic Region
15 State Street
Boston, MA 02109
617-223-5203

Maine Historic Preservation Commission
55 Capitol Street
State House Station 65
Augusta, Maine 04333
207-287-2132
Fax # 207-287-2335

Houlton Band of Maliseet Indians
Attn: Brenda Commander, Tribal Chief
Route 3 – Box 450
Houlton, Maine 04730
207-532-4273
Fax # 207-532-2660

Aroostook Band of Micmacs
P.O. Box 772
Presque Isle, Maine 04769
207-764-1972
Fax # 207-764-7667

Passamaquoddy Tribe of Indians
Indian Township Reservation
Attn: Donald Soctomah
P.O. Box 301
Princeton, Maine 04668
207-796-2301
Fax # 207-796-5256

Passamaquoddy Tribe of Indians
Pleasant Point Reservation
Attn: Tribal Council
P.O. Box 343
Perry, Maine 04667
207-853-2600
Fax # 207-853-6039

Penobscot Indian Nation
Richard Hamilton, Chief
6 River Road
Indian Island Reservation
Old Town, Maine 04468
(207) 827-7776
Fax # 207-827-1137

Maine Department of Environmental Protection
(For State Permits and Water Quality Certifications)
Natural Resources Division
Bureau of Land and Water Quality Control
State House Station 17
Augusta, Maine 04333
207-287-2111

Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103
201-822-6300

Eastern Maine Regional Office
106 Hogan Road
Bangor, Maine 04401
207-941-4570

Northern Maine Regional Office
1235 Central Drive
Skyway Park
Presque Isle, Maine 04769
207-764-0477

Maine Land Use Regulation Commission (LURC) offices
22 State House Station
Augusta, ME 04333-0022
207-287-2631
800-452-8711 (call to obtain appropriate LURC office)
Fax # 207-287-7439

45 Radar Road
Ashland, ME 04732-3600
207-435-7963
Fax # 207-435-7184

Lakeview Drive
P.O. Box 1107
Greenville, ME 04441
207-695-2466
Fax # 207-695-2380

191 Main Street
East Millinocket, ME 04430
207-746-2244
Fax # 207-746-2243

(For CZM Determinations)
State Planning Office
Coastal Program
184 State Street
State House Station 38
Augusta, Maine 04333
207-287-1009

Maine Department of Marine Resources
(For Aquaculture Leases)
McKown Point
Boothbay Harbor, Maine 04575
207-633-9500

(For Submerged Lands Leases)
Maine Department of Conservation
Bureau of Parks and Lands
22 State House Station
207-287-3061

A. INLAND WETLANDS (WATERS OF THE U.S.)[1]	CATEGORY I	CATEGORY II	INDIVIDUAL PERMIT
(a) NEW FILL/ EXCAVATION DISCHARGES	Less than 4,300 sf inland waterway and/or wetland fill and secondary impacts (e.g., areas drained, flooded or cleared). -- Includes projects covered by a State Tier One permit with no cumulative impacts over 15,000 sf in inland wetlands from previous permits, unauthorized work, and/or other state permits. --Includes crossing of perennial waterways designated as Essential Fish Habitat (EFH) for Atlantic salmon[2] if the waterway is crossed with a span and footprints of the span abutments are outside ordinary high water with no more than 4,300 sf of associated wetland impact. --Includes in-stream work of up to 4,300 sf of fill below ordinary high water in waterways not designated as EFH for Atlantic salmon[2] and performed in accordance with Maine Permit By Rule standards or a LURC permit.	4,300 sf to 3 acres inland waterway and/or wetland fill and secondary impacts (e.g., areas drained, flooded or cleared). --Impact area includes all temporary and permanent fill and excavation discharges except for incidental fallback. --Includes in-stream work, including crossings (other than spanned crossing as described in Category I) with any discharge of fill below ordinary high water in perennial waterways designated as EFH for Atlantic salmon[2]. --Time of year restrictions determined case-by-case.	Greater than 3 acres inland waterway and/or wetland fill and secondary impacts (e.g., areas drained, flooded or cleared). --Impact area includes all temporary and permanent fill and excavation discharges except for incidental fallback[3]. In-stream work exceeding Category II limits. If EIS required by the Corps.

[1] Waters of the U.S. in inland areas: inland rivers, streams, lakes, ponds and wetlands.

[2] Essential Fish Habitat for Atlantic salmon includes all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

The larger the impacts, the more likely an individual permit will be required. Projects involving widening, expansion or impacts to degraded or low valuewetlands between 1-3 acres may be approved under Category II, subject to the Federal screening. The Corps recognizes and endorses the DEP Tier 2 upper thresholds of 1 acre. Compensatory mitigation is likely to be required at this level of impact.

	CATEGORY I	CATEGORY II	INDIVIDUAL PERMIT
(a) NEW FILL/ EXCAVATION DISCHARGES (continued)	--Impact area includes all temporary and permanent fill and excavation discharges except for incidental fallback. --In-stream work limited to July 15-Oct. 1. --This category excludes situations when a vernal pool of any size may be impacted, in accordance with the ME DEP definition of vernal pool[4]. --This category excludes work within ¼ mile of a Wild and Scenic River[5]. --This category excludes dams, dikes, or activities involving water withdrawal or water diversion. --This category excludes work in National Wildlife Refuges.	Proactive restoration projects with any amount of impact can be reviewed under Category II. The Corps, in consultation with State and Federal agencies, must determine that net adverse effects are not more than minimal.	
(b) BANK STABILIZATION PROJECTS	Inland bank stabilization less than 500 ft. long and less than 1 cy fill per linear foot below ordinary high water in ponds, lakes, and waterways not designated as EFH for Atlantic Salmon[2], provided there is no wetland fill. --In-stream work limited to July 15-October 1.	--Inland bank stabilization in ponds, lakes, and waterways not designated as EFH for Atlantic salmon[2] which exceeds Category I limits. --Inland bank stabilization of any size below ordinary high water in waterways designed as EFH for Atlantic salmon[2]. --Other stabilization exceeding Category I.	
(c) REPAIR AND MAINTENANCE OF AUTHORIZED FILLS	Repair or maintenance of existing, currently serviceable, authorized fills with no substantial expansion or change in use.	Replacement of non-serviceable fills, or repair or maintenance of serviceable fills with expansion of any amount up to 1 acre, or with a change in use.	Replacement of non-serviceable fills, or repair or maintenance of serviceable fills with greater than 1 acre of expansion.

[4] Vernal Pool: Naturally-occurring, or intentionally created for the purposes of compensatory mitigation, temporary to permanent bodies of water occurring in shallow depressions that fill during the spring and fall and may dry during the summer. Vernal pools have no permanent or viable populations of predatory fish. Vernal pools provide the primary breeding habitat for wood frogs, spotted salamanders, blue-spotted salamanders, and fairy shrimp, and provide habitat for other wildlife including several endangered and threatened species.

[5] National Wild/Scenic Rivers System (Designated River in Maine): Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River. Length = 92 miles

B. TIDAL WATERS AND NAVIGABLE WATERS[6]	CATEGORY I	CATEGORY II	INDIVIDUAL PERMIT
(a) FILL		Up to 1 acre waterway or wetland fill and secondary impacts (e.g., areas drained, flooded or cleared). Includes temporary and permanent waterway fill. --Temporary tidal marsh impacts up to 1 acre. --Permanent tidal marsh, mudflat, or vegetated shallows[7] fill up to 1,000 sf. -- Proactive restoration projects with any amount of impact can be reviewed under Cat. II. The Corps, in consultation with State and Federal agencies, must determine that net adverse effects are not more than minimal.	Greater than 1 acre waterway fill and secondary impacts (e.g., areas drained, flooded or cleared). Includes temporary and permanent waterway fill. --Temporary tidal marsh impacts over 1 acre. --Permanent tidal marsh, mudflat, or vegetated shallows[6] fill over 1,000 sf.
(b) REPAIR AND MAINTENANCE WORK	Repair or maintenance of existing, currently serviceable, authorized structure or fill with no substantial expansion or change in use. --Work must be in same footprint as original structure or fill.	Repair or replacement of any non-serviceable structure or fill, or repair or maintenance of serviceable fills, with expansion of any amount up to 1 acre, or with a change in use.	Replacement of non-serviceable structures or fill or repair or maintenance of serviceable structures or fill with expansion greater than 1 acre.

[6] Navigable Waters: waters that are subject to the ebb and flow of the tide and Federally designated navigable waters (Penobscott River to Medway, Kennebec River to Moosehead Lake, and the portion of Umbagog Lake in Maine).

[7] Vegetated Shallows: subtidal areas that support rooted aquatic vegetation such as eelgrass.

	CATEGORY I	CATEGORY II	INDIVIDUAL PERMIT
(c) DREDGING	Maintenance dredging of less than 1,000 cy with upland disposal. --Proper siltation controls used --Limited to work between November 1 and January 15 --No impact to special aquatic sites[8].	Maintenance dredging of greater than 1,000 cy, new dredging of up to 25,000 cy, or projects that do not meet Category I. Disposal includes upland, open water or beach nourishment (above mean high water), only if material is determined suitable.	Maintenance dredging (any amount) in or affecting special aquatic sites[7]. See B(a) above for dredge disposal in wetlands or waters. New dredging greater than 25,000 cy or any amount in or affecting special aquatic sites[7].
(d) MOORINGS	--Private, non-commercial, non-rental single boat moorings not associated with any boating facility[9] provided not located in a Federal Navigation Project, there is no interference with navigation, it is not located in vegetated shallows[6], and it is within ¼ mile of the owner's residence or a public access point[10]. --Minor relocation of previously authorized moorings and moored floats consistent with Harbormaster recommendations, provided it is also consistent with local regulations, is not located in vegetated shallows, and does not interfere with navigation.	Moorings that do not meet the terms of Category I (e.g., rental or service moorings) and moorings that meet the terms of Category I that are located in a Federal anchorage.	Moorings within the horizontal limits, or with moored vessels that extend, into the horizontal limits of a Federal Navigation Project, except those in Federal anchorages under Category II.

[8] Special Aquatic Sites: include wetlands and salt marsh, mudflats, riffles and pools, and vegetated shallows.
[9] Boating Facilities: facilities that provide, rent, or sell mooring space, such as marinas, yacht, clubs, boat clubs, boat yards, town facilities, dockominiums, etc.
[10] Cannot be at a remote location to create a convenient transient anchorage.

	CATEGORY I	CATEGORY II	INDIVIDUAL PERMIT
(e) PILE-SUPPORTED STRUCTURES AND FLOATS	Reconfiguration of existing authorized docks, provided structures are not positioned over vegetated shallows[6] or salt marsh and provided floats are supported off substrate at low tide. No dredging, additional slips or expansion allowed.	Private piers and floats for navigational access to waterway (seasonal and permanent).	Structures, piers or floats that extend, or with docked/moored vessels that extend, into the horizontal limits of a Federal Navigation Project. Structures, including piers and floats, associated with a new or previously unauthorized boating facility[8].
(f) MISCELLANEOUS	--Temporary buoys, markers, floats, etc., for recreational use during specific events, provided they are removed within 30 days after use is discontinued. --Coast Guard approved aids to navigation. --Oil spill clean-up temporary structures or fill. --Fish/wildlife harvesting structures/fill (as defined by 33 CFR 330, App. A-4) --Scientific measurement devices and survey activities such as exploratory drilling, surveying or sampling. --Shellfish seeding (brushing the flats) projects[11] --Does not include oil or gas exploration and fills for roads or construction pads. --This category excludes work in National Wildlife Refuges.	--Structures or work in or affecting tidal or navigable waters that are not defined under any of the previous headings. Includes, but is not limited to, utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, bridge fills/abutments, etc. --Shellfish/finfish (other than Atlantic salmon), or other aquaculture facilities which are consistent with the Corps revised standard siting requirements and standard permit conditions dated 7/6/94, or as revised.	If EIS required by Corps.

[11] Brushing the flats: the placement of tree boughs, wooden lath structures, or small-mesh fencing on mudflats for the purpose of enhancing recruitment of soft-shell clams (*Mya arenaria*).

WORK START NOTIFICATION FORM

(Minimum Notice: Two Weeks before Work Begins)

MAIL TO: U.S. Army Corps of Engineers, New England District
Regulatory Branch
Policy Analysis/Technical Support Section
696 Virginia Road
Concord, Massachusetts 01742-2751

A Corps of Engineers Permit (No. _____) was issued to the permittee. The permit authorized the permittee to _____

_____

_____

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

_____

_____

Business Address: _____

_____

_____

Telephone Number: (____) _____ (____) _____

Proposed Work Dates: Start: _____ Finish: _____

PERMITTEE'S SIGNATURE: _____ **DATE:** _____

PRINTED NAME: _____ **TITLE:** _____

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ Submittals Required: _____

_____

Inspection Recommendation: _____

_____

9/29/00

MITIGATION WORK-START NOTIFICATION FORM
(Minimum Notice: Two Weeks Before Mitigation Work Begins)

****

MAIL TO: U.S Army Corps of Engineers, New England District
Regulatory Branch
Policy Analysis/Technical Support Section
696 Virginia Road
Concord, Massachusetts 01742-2751

****

Corps of Engineers Permit No. (_____) was issued to **[insert name of permittee].** The permit authorized the permittee to **[insert brief description of the authorized work and location].**

The permit required compensatory mitigation. **[Briefly describe the requirements, including, if applicable, submitting a final mitigation plan and monitoring reports.]**

Those listed below will do the mitigation, including monitoring and remediation if required. They understand the requirements of the permit and the mitigation and monitoring plan.

PLEASE PRINT OR TYPE

	Environmental *Consultant/Scientist*	**Mitigation** *Contractor*
Name of Person/Firm:	_____	_____
Business Address:	_____	_____
	_____	_____
	_____	_____
Telephone Number:	**( )**_____	**( )**_____

Proposed Mitigation Work Dates: Start _____ Finish_____

PERMITTEE'S SIGNATURE: _____ **DATE:** _____

PRINTED NAME: _____ **TITLE:** _____

Corps PMs: _____